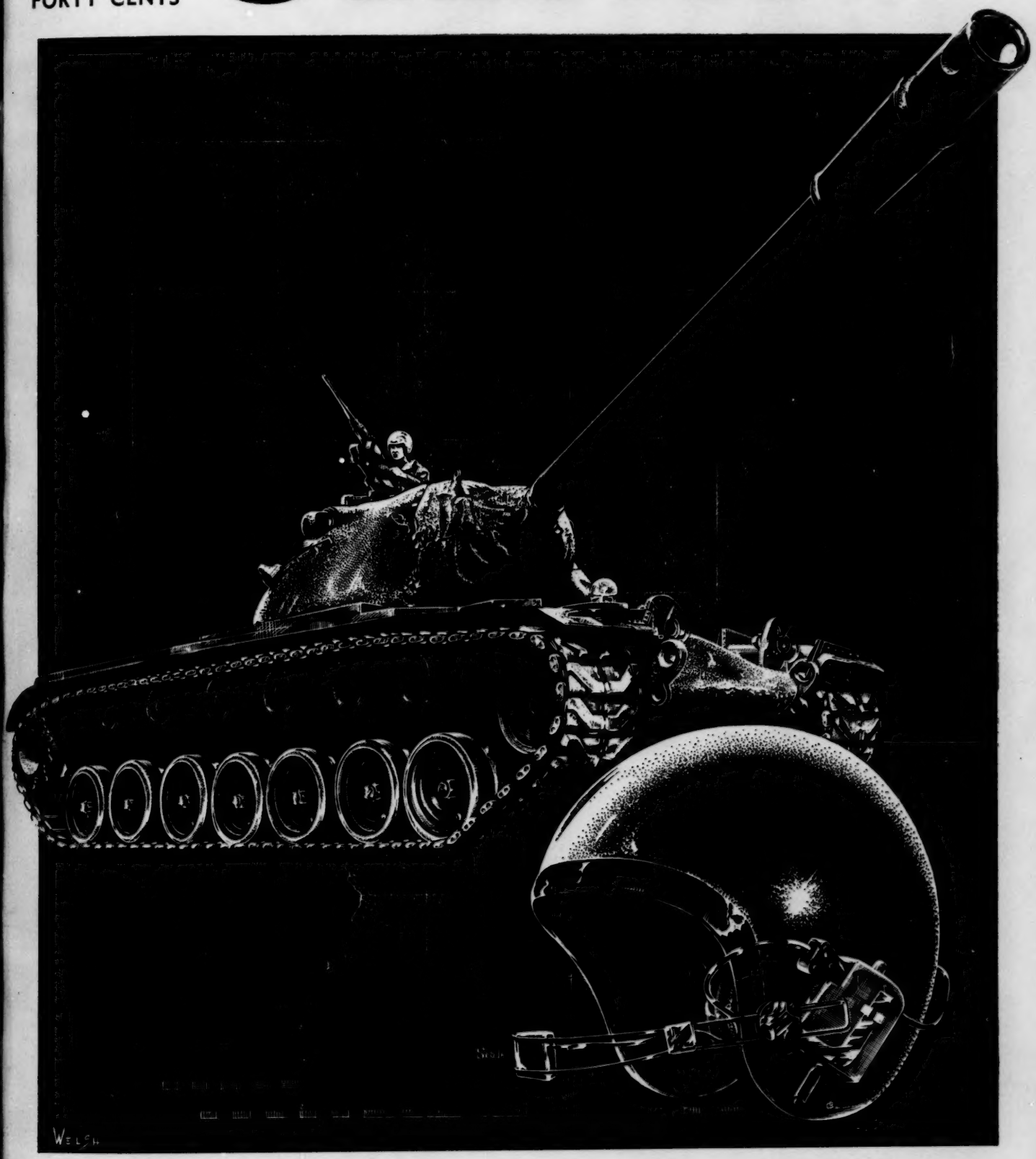
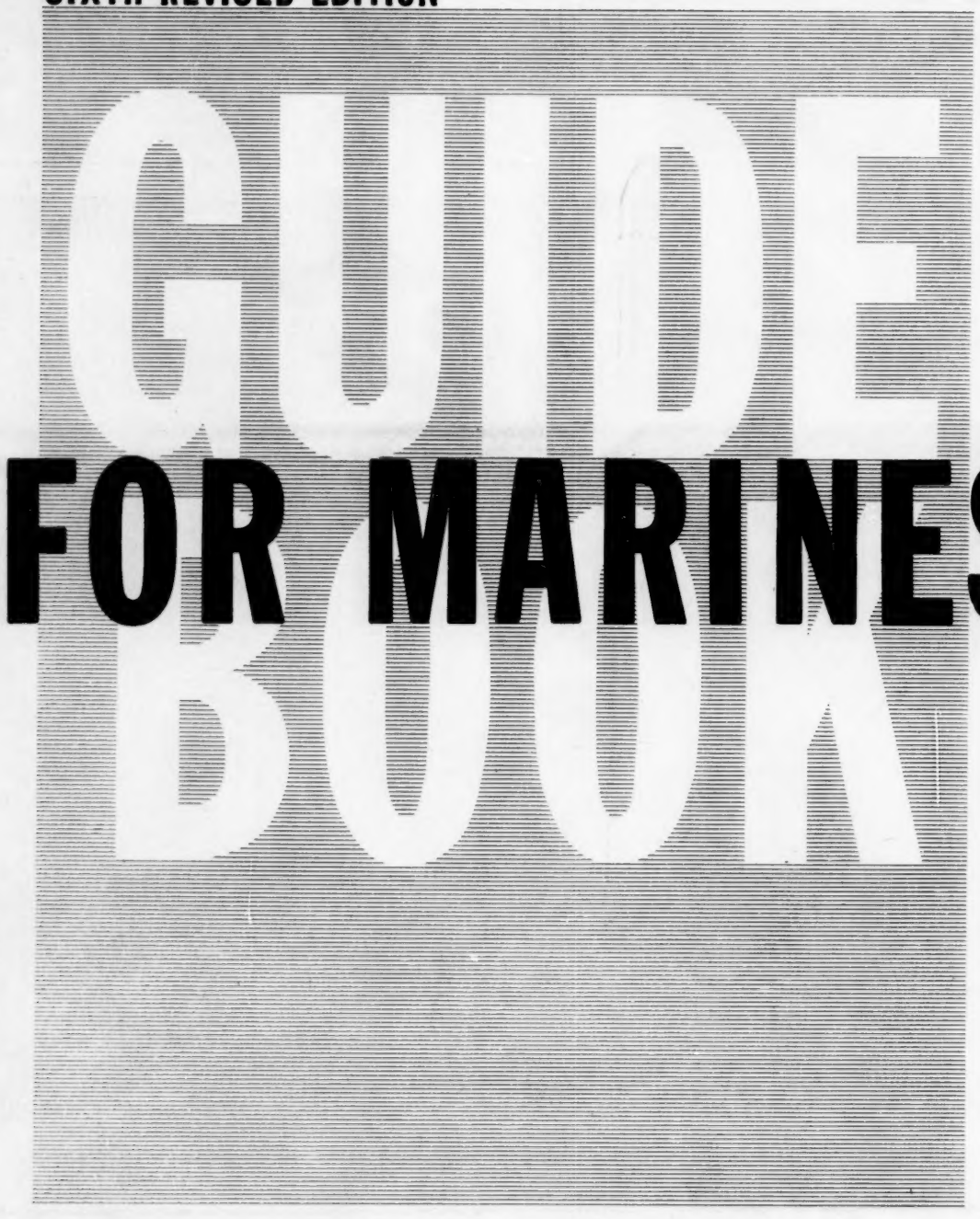
Marine Corps Gazette

OCT 1959

FORTY CENTS



SIXTH REVISED EDITION



FOR MARINES

*$1.50 THE LATEST EDITION WITH THE 8-MAN SQUAD DRILL AND THE NEW RANK STRUCTURE

order from

THE GAZETTE BOOKSHOP
BOX 1844, QUANTICO VA.

*15% DISCOUNT FOR MEMBERS OF THE MARINE CORPS ASSOCIATION

Famed red telephone is at left. Device at right is internal alert dial system for alerting headquarters personnel.

This is one of the most important telephones in the free world

A vital link in the nation's communications network, widely dispersed for safety

The phone is at Headquarters, Strategic Air Command. In the event of attack, orders would be given over it *simultaneously* to every SAC base, thus launching a massive retaliatory force against the enemy.

To a great extent, America's defense communications use the existing Bell Telephone network, which operates on land, through the air, and under the oceans. *Today that network is so widespread and diversified that the resulting communications reliability is one of our important defense resources.* Important telephone routes bypass major target areas. Many different means of communication back each other up, so that if one is lost another is available.

The Bell System has also helped create communications for such vital defense projects as our far-northern Distant Early Warning radar line for protection from aerial attack. And it is at work now on communications for BMEWS — the Ballistic Missile Early Warning System. These are just two of the many defense jobs that we have undertaken.

Swift, dependable communication is our business, whether to speed the cheerful voices of home and industry, or the sterner voices of defense.

BELL TELEPHONE SYSTEM

Marine Corps Gazette

OCTOBER 1959
NUMBER 10
VOLUME 43

Published by the Marine Corps Association in order to provide a forum for the expression of matters which will advance knowledge, interest and esprit in the Marine Corps

IN THIS ISSUE

TRANSPORTATION: BASIS OF POWER	*Dr. Anthony E. Sokol*	10
TOP SQUAD IN COMBAT FIRING		18
TANKS?	*Maj. W. C. Barrett*	20
BUILDING THE BATTALION STAFF	*LtCol H. D. Pratt*	24
MARINE CORPS ASSOCIATION NEWS		26
LIMITS ON THE ATOM?	*Col J. O. Bell*	28
FREEDOM FIGHTER		31
AT ALL TIMES READY THE MARINES AT HARPER'S FERRY	*Bernard C. Nalty*	32
PRESTIGE AND YOUR OFFICE	*AMSgt M. L. Taylor*	38
MILITARY REPORT ON SPAIN	*Robert B. Asprey*	40
FLYING DUCK!		46
SUPPORT BY FIRE (PART FOUR) NAVAL GUNFIRE: ADRIFT IN THE HORSE LATITUDES	*LtCol T. N. Greene*	48
MISLEAD THE ENEMY	*Col V. J. Croizat*	52

MESSAGE CENTER	4
IN BRIEF	47
PASSING IN REVIEW	55
OBSERVATION POST	58

THIS MONTH'S COVER . . . . . Scratchboard illustration by *Leatherneck* artist AMSgt Hobey Welsh.

PUBLISHED MONTHLY BY THE MARINE CORPS ASSOCIATION

Copyright 1959 by the MARINE CORPS ASSOCIATION, Box 1844, Quantico, Va. Entered as second-class matter at the Post Offices at Quantico, Va. and Baltimore, Md. Subscription rates, $4.00 a year; $7.00 for 2 years; $9.50 for 3 years. Foreign subscriptions, $5.00 a year (except US possessions and Canada). Every effort will be made to return material not accepted for publication, but no liability is assumed by the Association. All pictures are official Department of Defense photos unless otherwise credited.

Advertising Representative: Shannon & Associates Inc., New York (28 West 44th Street), Chicago, Atlanta, Cleveland, Detroit, Los Angeles and San Francisco. Printed at 32nd St. and Elm Ave., Baltimore 11, Md.

Editor in Chief
BGen S. R. Shaw

Editorial Board
Col O. R. Simpson
Col W. P. Baker
Col A. A. Elder
LtCol N. D. Glenn
Maj H. L. Beckington
Maj H. L. Alderman

Editor and Publisher
LtCol T. N. Greene

Managing Editor
Maj H. Preston

Business Manager
Maj A. S. Baker

Promotion Manager
F. T. Stolley

Opinions expressed in the Gazette do not necessarily reflect the attitude of the Navy Department nor of Headquarters, United States Marine Corps

Sikorsky S-60 —opens a new world of helicopter usefulness

PRIME MOVER—The Sikorsky S-60 crane helicopter, with a five-ton payload, is the prototype of a new family of UTVs (Universal Transport Vehicles) of almost unlimited usefulness. It is an aerial prime mover, an airborne cousin to such ground prime movers as locomotives and truck trailers.

INCREASED MOBILITY—Independent of roads, tracks and all surface obstacles, flying cranes will move passengers and cargoes with unprecedented speed and agility. New techniques, using hoists, platforms, bins and pods, will greatly reduce loading and unloading times.
(Above, the dump truck technique makes possible quick unloading of transported fuel drums.)

SMOOTH FLIGHT—Loads suspended under the S-60 fuselage are virtually free of vibration—a major advantage in carrying big passenger pods or in transporting sensitive cargoes such as missiles.

NEW POWER—Sikorsky crane helicopters now in design will have high-powered gas turbine engines and will carry payloads from eight to 40 tons.

SIKORSKY AIRCRAFT, Stratford, Connecticut
A division of United Aircraft Corporation

More News?

. . . It is with pleasure that I notice the GAZETTE is printing more articles. Since a professional magazine should keep its readers informed in their field and assist them in their profession, it is respectfully suggested that articles on the following subjects be included when appropriate:

Congressional legislation as it affects the Corps.

Defense Department and Marine Corps policy on various subjects.

Changes in UCMJ and Marine Corps Manual.

Evaluations of equipment and estimates on proposed equipment.

Condensed reports of maneuvers and exercises.

Inspector General's itinerary and major discrepancies peculiar to commands.

Publication of a list of orders published during the month with their subject and a few words about their purpose.

Promotion Board meetings and results.

Personnel utilization and organization of units and staffs.

Personnel, technical and professional problems encountered in the field and methods used to remedy them.

Success of the different programs—moral leadership, education, discipline, morale, work management and esprit de corps.

With the above information [we] would be more informed and would look with anticipation for the next copy of the GAZETTE.

Maj E. S. Maloney
MCA Representative
VMF(AW)—531, MAG—11
1stMAW, Air FMFPac

Ed: This is food for thought for us and for would-be writers. Do you want more of a news magazine? Or do you read the papers? The GAZETTE has no staff of writers to gather Marine Corps news—except that you readers are experts and can, if you will, send us the inside stories. Let us know.

NOTE TO WRITERS

The GAZETTE has just raised rates for short features. New payments are:

- **MESSAGE CENTER: $1 to $20**
- **Anecdotes: $15**
- **OBSERVATION POST: up to $60**

Payment when published. We want more material from members. We'll gladly send our new Writer's Guide on request, with full details.

He's a Growing Boy

. . . As is customary prior to an IG inspection, I subjected my platoon to a considerable number of preliminary inspections in the weeks preceding the IG's recent visit.

During these inspections I expounded at great length on the minutiae contained in Chapter 49 of the MCM, as it pertains to the proper wearing of the uniform. Trouser lengths were adjusted, belt overlaps measured, proper placement of chevrons and hashmarks was explained, etc., etc., ad-nauseam. The statement, "A good Marine wears his uniform in only one way—the right way," was made over and over.

Imagine my chagrin when a member of the platoon invited my attention to the picture on the inside cover of our professional magazine for Marines, the July issue of the MARINE CORPS GAZETTE. There we see a young captain, in an advertisement for *The Marine Officer's Guide*, no less, whose trousers *do not* break slightly over the front of the shoes and reach the juncture of the shoe and the heel in the back, as required by Paragraph 49081 (1) of the MCM.

Someone on the staff of the GAZETTE must have made an "honest mistake" and forgot to conduct an inspection of the captain's uniform before allowing his picture to grace the pages of the professional magazine of our Corps. Am I right?

CWO G. J. DeCaro
MB, Navy #3912
FPO San Francisco, Calif.

Ed: Here's another shot of the captain's trouser break: same uniform, but at parade rest. We'll inspect next time. Note the double-soled shoes.

Qualifying Comments

. . . Someone has finally put on paper what has been voiced many times at the range. *Requal Scoring* by AGySgt J. F. McAllister (GAZETTE: Aug '59) speaks for . . . everyone.

Many an "expert" or "sharpshooter" has dropped into the next lower category or even failed to qualify because of weather conditions on record day being extremely different than during the week . . . even adverse!

ASSgt R. J. Devon
MCRS
Nashville, Tenn.

* * *

. . . I favor the present record day system primarily for the pressure factor. Actually, a shooter is under pressure the entire week, for what he learns or reviews, how carefully he records each round, and the thoroughness of checking his weapon *each day* will add up to the final results.

Capt F. D. Leder, USMC
US Military Academy
West Point, N. Y.

* * *

. . . A Marine is not unqualified on record day "because something happened to cause him to miss the magic 190 figure on the score sheet." The simple truth is that he could not hit the target at which he was shooting.

There is nothing wrong with the scoring system. The acceptance of half-training measures and lack of concern about unqualified riflemen is wrong. The "record day fluke" does not exist. This Marine was thinking and correctly applying his

(Continued on page 6)

CATERPILLAR'S **No. 1** PROJECT *

NEW CAT POWER SHIFT TRANSMISSION FOR D9 AND D8 TRACTORS

- **Shifts on-the-go under full load in a split-second!**
- **Changes speed, reverses direction with finger-tip control lever—and no clutching!**
- **Increases production on any application!**

The wraps are off—it's ready. After many years of research and on-the-job testing, Caterpillar now offers a revolutionary new transmission option for D9 and D8 Tractors —*power shift!* Built for heavy-duty tractor service, this new transmission—with an exclusive design—provides production highs never before possible with a track-type tractor. Here's why:

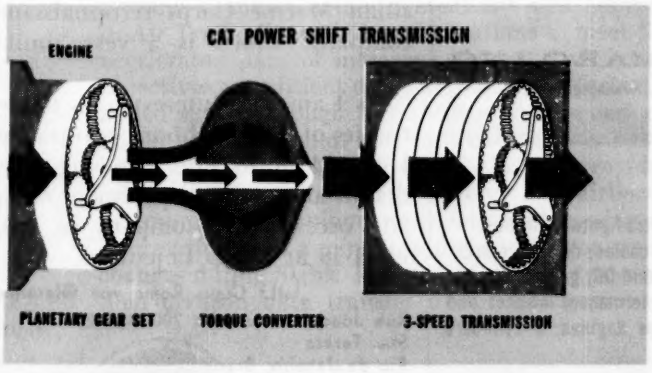
1. It combines for the *first* time the flexibility and anti-stall features of a torque converter with the operating snap of direct drive. And because of its direct drive characteristics, it is more efficient than other power shift designs.

2. With one control lever and no clutching, it reverses direction . . . changes speed . . . smoothly . . . under full load . . . in a fraction of a second.

Talk about productivity—the Cat power shift transmission delivers plenty of power . . . fast . . . in the highest gear possible. And shifting is so easy the operator just naturally gets more work out of the tractor. What's more, he gets it on the toughest, most demanding jobs.

Caterpillar power shift transmission comes to you thoroughly tested by exacting design and demanding field work in the heaviest earthmoving duty. In addition, you also have your choice of direct drive or torque converter in the D9 or D8. Whatever your application, Caterpillar has the most productive machine to match the job.

Caterpillar Tractor Co., Peoria, Illinois, U. S. A.



BASIC DESIGN: Total power is transmitted from the engine to a planetary gear arrangement mounted in the engine flywheel. The planetary divides and directs the total power – part goes through a direct drive shaft straight to the transmission and the remainder through a torque converter to the transmission. This division of power retains the best features of both direct and torque converter drive tractors and delivers unexcelled performance on the toughest jobs.

CATERPILLAR

Caterpillar and Cat are Registered Trademarks of Caterpillar Tractor Co.

DIESEL ENGINES • TRACTORS • MOTOR GRADERS
EARTHMOVING EQUIPMENT

BORN OF RESEARCH
PROVED IN THE FIELD

***CATERPILLAR'S NUMBER ONE PROJECT:** a multimillion-dollar research program—to meet the continuing challenge of the greatest construction era in history with the most productive earthmoving machines ever developed.

(Continued from page 4)

knowledge, gained through the week of firing and carefully cleaning and checking his rifle every day.

Maj R. E. Dawson
Force Troops, FMF Pac
29 Palms

* * *

. . . The most valid argument against week-long qualification involves the question of motivation. Would it be possible for most Marines to keep themselves psychologically motivated for an entire week? I doubt it. The whole idea of the days prior to record day is to work out all the kinks . . . a down payment, so to speak, toward a successful record day.

1stLt C. M. Bausch
2dMarDiv
FMF Lant, Camp Lejeune

* * *

. . . It's a fine article. Mac didn't mention it, but during the three years we were together I remember the author always fired expert, prior to and on record day.

MSgt F. R. Babcock
MCRS
Portland, Ore.

'Brain-storm' Embarkation

. . . Capt Cribb's article, *Embarkation Ready* (GAZETTE: Aug '59), recalled an ambitious project we undertook in the Embarkation Section of the 3dMarDiv at Gifu, Japan.

Division units were scattered all over Honshu; truly an embarkation nightmare. The section, under Lt Col R. T. Knox, spent several weeks compiling data on which to base mount-outs from any combination of ports and in a variety of combinations of units. These unofficial "code plans" were filed to form the basis for detailed embarkation plans and awaited only the tactical concept and a few details to make them operative.

We never got a chance to use them in a tactical situation, but they were very useful in the subsequent administrative moves of the 4th Marines to Hawaii and the 9th Marines to Okinawa. Also, they saved a lot of time in supplying answers to planning questions posed by the Chief of Staff and other staff sections.

Capt Cribb goes far beyond our efforts, but our thinking was along the lines of his article. Seems like sound reasoning and I hope it will stimulate further "brain-storming" of this problem.

Maj R. M. Head
I-I, 72d InfCo, USMCR
Lima, Ohio

Interest Abroad

. . . The article [*Heavyweight Pair*] in the July edition of the GAZETTE would, I am sure, be of very great interest to the readers of our

Corps Journal. I am therefore requesting that you permit me to use the article as it stands—giving the necessary credits to your magazine.

I would also like permission to use the letter *Rifleman to Chopper* [OBSERVATION POST] by AGySgt M. M. Murray in the same edition.

W. J. Norris, Secretary
GLOBE AND LAUREL
RM Barracks
Portsmouth, England

Reconning Recon

. . . With reference to the article *Force Recon—By Land, Sea and Air* by BGen H. Nickerson, Jr. (GAZETTE: Feb. '59), I want to express my great pleasure in reading about the activities of this company. Incidentally, I am commander of a Brazilian Marine Corps reconnaissance company, which is a very similar one.

As I am very interested in the activities of our neighbor organization, I would appreciate knowing more details about the employment of the 2d Force Recon Company in PHIBEX, 1-58 at Camp Lejeune.

1stLt Claus Romo von Glasenapp
Rua Joaquim Murtinho 700 Apt 202
Sta. Tereza
Rio de Janeiro, Brazil

Ed: We'd like to hear more about recent exercises, too. Writers: how about it?

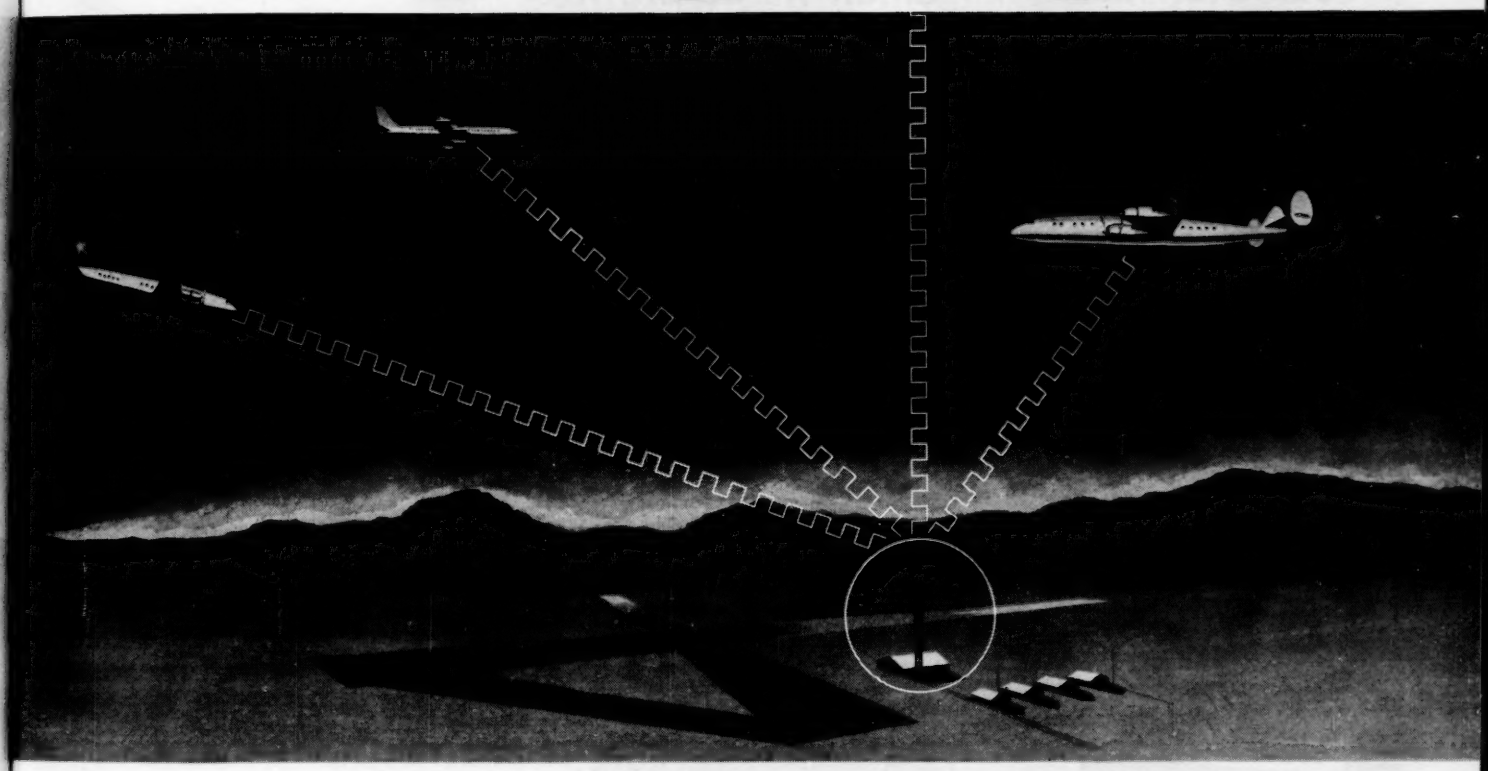
(Continued on page 8)

DIESEL POWER
for the military...
American MARC proudly serves our nation's defense program by providing the finest in lightweight diesel powered equipment.
Through constant research and diligent attention to every manufacturing detail, American MARC products assure positive dependability.
AMERICAN MARC INC.
1825 Connecticut Avenue, Washington 9, D. C.
American MARC products include: Ultra-lightweight diesel engines, 7 to 16 HP, air and water cooled; diesel electric generator sets, 2½ to 10 KW, AC and DC; generators, ½ to 100 KW, 400 and 60 cycle, permanent magnet and static excited types; natural gas engines, 2 cylinders, 15 HP, air cooled

new wings for words

AGACS

pronounced "AJAX"



AGACS, Experimental Automatic Ground/Air/Ground Communication System is a new concept in Air Traffic Control Communications to meet the accelerated pace of increased air traffic. Primary objectives are efficient usage of frequency spectrum, added safety through increased reliability and reduced burden to pilot and controller, and adaptability to all classes of aircraft. AGACS provides compatibility with existing ground and airborne communication equipment, selective addressing of information, and a minimum number of frequency changes during flight. The system utilizes two-way time division data transfer over existing ground and air communication links to provide an automatic, mutual exchange of information. The airborne facilities display to the pilot the last significant Air/Ground and Ground/Air message quantities, while the controller may recall from central memory-storage equipment the last Air/Ground and Ground/Air message quantities for display. The AGACS program is still in the developmental stage. In August, 1959, RCA provided initial models of both airborne and ground equipments for the Bureau of Research and Development of the Federal Aviation Agency for extensive experimentation and flight tests.

RCA

Tmk(s) ®

RADIO CORPORATION of AMERICA

DEFENSE ELECTRONIC PRODUCTS

CAMDEN, N.J.

(Continued from page 6)

New Wrinkle—Old Cap

. . . In the last few years we have starched it, pressed it, blocked it, sewed stiffening seams into it, redesigned it, and done everything but sewed quatrefoils onto it. And still there are gripes about the utility cap.

It has been advocated that it be replaced with the Royal Marines Commando beret, the kepi (used by the Army but taken from the French) and even the old German forage cap.

The two requirements [for a cap of this kind] seem to be in conflict: good appearance versus practical use. One solution would be two hats, one to fill each need. This would be a poor choice, however, because it would mean an added item to be bought, carried and maintained. Moreover, we can have both if a slight change in uniform regulations is made.

Recommendation: 1) retain the utility cap but only for enlisted Marines to be worn when they are working with lubricants, solvents, or when other harmful conditions for clothing are likely to be encountered; and 2) restore the regulations authorizing summer and winter garrison caps to be worn by all ranks on other occasions when utilities are worn.

This would have these advantages: 1) enhance the appearance of troops in utilities and possibly eliminate some of the present dissatisfaction; 2) retain a practical work hat that should not need further modification to do its job; 3) utilize a distinctive military item that readily identifies its wearer as a Marine, as it has for many years; 4) require no new or additional items of clothing; 5) looks well with the scarf and leather boots.

Let's reduce further innovations in our uniforms and better utilize what has served so well in the past.

Capt M. B. Reilly
HqBtry, 2dBn, 12th Marines
3dMarDiv (Reinf)
FPO San Francisco, Calif.

$20 Bait

. . . In the San Francisco Bay Area, under the guidance of MajGen J. P. Berkeley, we have recently formed the Bay Area Chapter of the Marine Corps Association. Our membership is around 40 and still growing.

It is our intention to make our chapter the most active in the MCA. At our first dinner meeting, Gen O. P. Smith gave a magnificent talk on the qualities of leadership. We anticipate having other eminent speakers on professional Marine Corps subjects.

Our publicity committee chairman would like to know if there is any chance your Gazette format can accommodate reports and photos on our Association Chapter meetings.

We would be pleased to have any suggestions which will assist in the future success of our chapter.

Col W. E. Barnes
Director, 12th MCR&RD
San Francisco 6, Calif.

Ed: Definitely the GAZETTE wants news of Association doings. Stories and pictures should reach us by the 10th of the month before we publish. The Association wants suggestions from members. We'll pay $20 for the best letter on how to improve local chapters. Deadline: 10 November. See p. 26 this issue.

Your Standard Brandsman maps profits
He can scout you tidy profits on gelatin desserts, if you serve Royal in your open mess or exchange restaurant.
Proof? The "schnozzola" test! Pour boiling water over Royal Strawberry Gelatin. Royal's fragrance will remind you of just-picked berries. Your present gelatin (unless it's Royal) couldn't pass the same test.
Royal's versatile, too—makes countless variations of desserts, salads, pies. Order Royal, soon.
Royal
GELATIN DESSERTS

'Jeep' XM443E1 showing versatility of its platform principle.

from Willys: mobile, hard-hitting, airborne ground transport!

FOR TODAY'S MODERN MILITARY MISSION

A new concept in lightweight tactical transport, based on the revolutionary platform principle. The XM443E1 is designed to meet the needs of today's, *and tomorrow's*, mobile armed forces.

- **Functional!** Extreme lightweight, compact design makes most use of critical air transport shipping space. Has a 1 to 1 payload to weight ratio.
- **Versatile!** Serves as a personnel carrier, 4-patient ambulance, communications unit, surveillance vehicle, forward guidance unit, self-propelled artillery or rocket vehicle, supply truck. A family of vehicles in *one* unit.
- **Flexible!** Just a flip of the seats converts it for cargo or personnel carrying activity. Transforms quickly to meet any immediate need.
- **Stable!** Independent wheel suspension safeguards personnel and even sensitive electronic equipment over the roughest terrain.

And famous 'Jeep' 4-wheel drive provides double-traction action to take men and equipment...anywhere!

'Jeep' M-274 Mechanical Mule

The vehicle that *introduced* the platform principle. U.S. Army and Marine Corps units are already equipped with this versatile vehicle.

'Jeep'® vehicles are made only by Willys Motors... one of the growing Kaiser Industries.

Willys Motors, Inc., Toledo 1, Ohio

KAISER WILLYS MOTORS

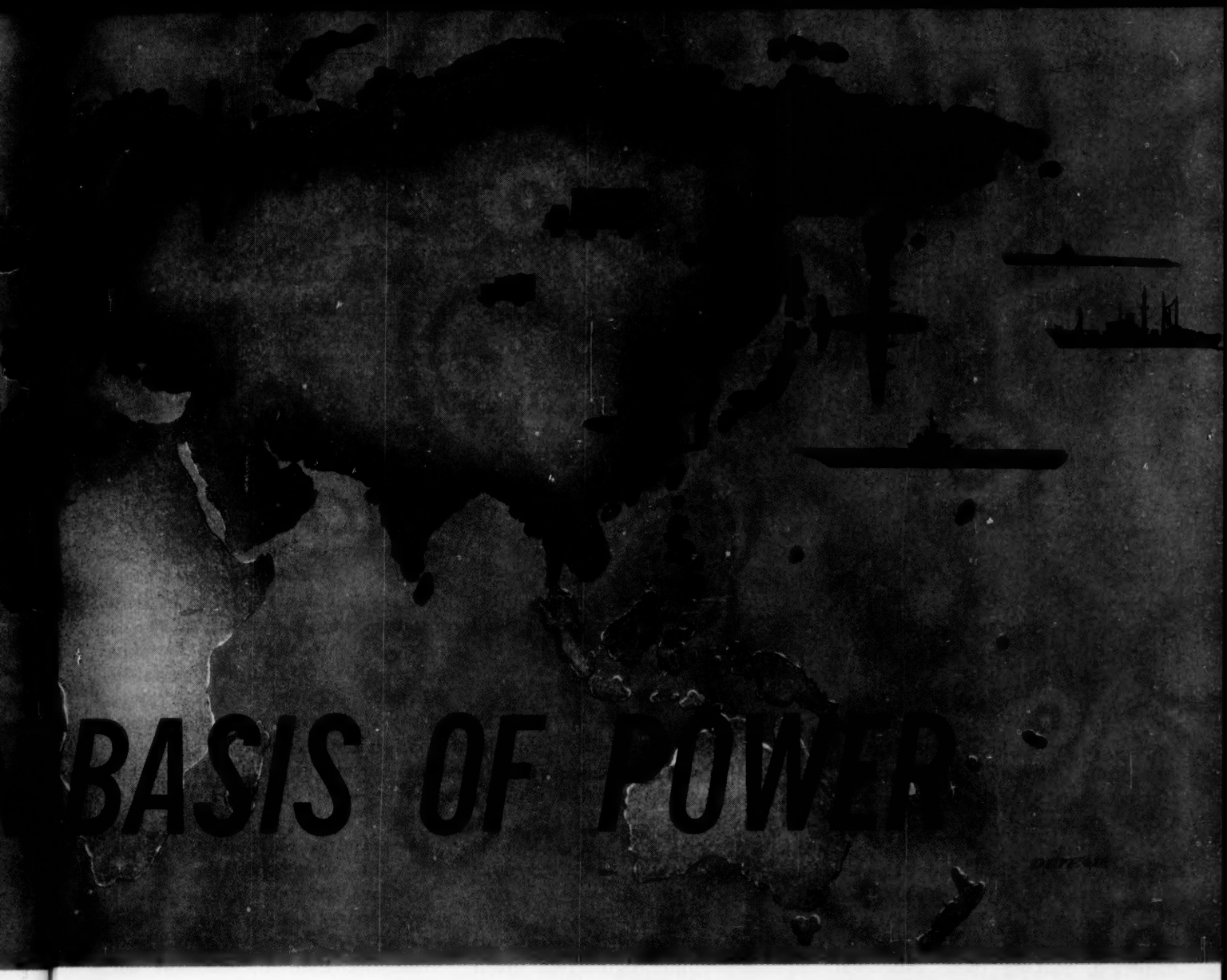
TRANSPORTATION

By Dr. Anthony E. Sokol

THE SOVIET UNION, OUR CHIEF antagonist in peace and potential adversary in war, occupies a heartland position, the central location within the Eurasian double continent, and controls a vast, monolithic land mass. This means that it can find most of the raw materials which it needs for its industry and for feeding its large population within its own territory or in that of its satellites, which are located adjacent to and adjoining its borders. And if we assume the conquest of the whole of Eurasia to be one of the primary objectives of the Communist Bloc, the aggressors can strike in almost any direction, over comparatively short distances, and entirely over land. All they need to do is to spill their present borders into the territory of the neighbors who are to be conquered or subdued. In doing so, the bulk of transportation will be by land, with air transport a tremendously important aid, especially for conveying weapons, while sea communications will play a relatively minor role. In other words, the Soviet Union and its dependencies are today primarily and outstandingly a Land Power.

This location on the globe causes and enables the Soviet Union to surround itself with a protective belt of satellite countries which, in case of war, would serve as a sort of glacis as well as a forward position from which to attack others. Such buffers are, however, absent where the sea reaches deep into the Communist land mass, which makes the Russians particularly sensitive to any threat from that direction. This fear is justified and increased by the fact that within the last century and a half Russia, while successfully resisting invasion by land alone, was defeated twice by the aid of sea power, which made possible large-scale landing operations: in the Crimean War of 1854-56, and in the Russo-Japanese War of 1904-05.

In contrast to this, the Free World is fragmented, scattered over the rimland of the Eurasian continent, or located on different continents altogether, its members separated from each other, but also connected with each other, by large oceans and long sea routes. This constitutes a great weakness, but it also gives our side a definite advantage since in that way most of the treasures of the world are easily accessible to us and can supplement the resources of each of the member nations. This situation, however, explains the Free World's dependence on ocean transportation.[1] And assuming that one



of its primary goals is first to stop, and eventually roll back, Communist aggression on the Eurasian continent, it makes it necessary for its members to confront the Communists there. In the case of the US and a number of others, this requires crossing the ocean, which makes the Free World basically a Sea Power, and places it under the obligation to develop and utilize the potentialities of sea power, or of sea transportation, to the fullest possible extent.

Now, this consideration should not lead us to minimize the role of land and air transport in our economic and military requirements; it only shows that sea power for us has a special meaning and constitutes a weapon of singular efficiency, which, therefore, deserves our particular attention. Naturally, our dependence on the ocean also exposes us to grave dangers, as we cannot afford to have our sea communications interrupted. Realizing all this, we have it in our power to make a virtue of necessity, and to forge a sword which, by taking advantage of our natural superiority in sea power, may give us the means to overcome the Communists' lead in land power, in the air, and even in guided nuclear missiles.

Land Transportation

Through the introduction of railways, automobiles, and an elaborate system of paved roads, land transportation in the few densely populated and highly civilized parts of the earth has been highly developed and become very efficient within the last 150 years. It is therefore much better able to negotiate short distances over land than it was in earlier days. But if rails or paved roads, which require large investments, are not available, or if natural obstacles intervene—conditions which prevail, especially in the interior of continents—land transportation must revert to primitive and inefficient forms.

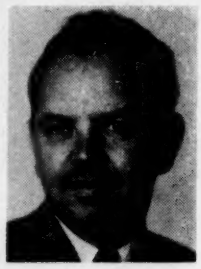
Even under improved conditions, however, land vehicles, because of ground friction, are necessarily small. If they move at high speeds, they use up vast amounts of energy and hence of fuel, making them relatively expensive to operate and limited in

[1]This is well illustrated by the fact that, while the Communists possess only about 3.0% of the world's shipping facilities, the Free and the Uncommitted Nations together control some 97.0% of it. In naval strength the West, collectively, is also, except for the number of submarines, much stronger than the Communist Bloc and can readily remain so.

range, which for practical purposes, seems not to exceed a distance of between 1,000 and 1,500 miles. Beyond it, land transportation tends to bog down. Because of its present weight and space requirements, atomic power will be slow in being adopted for use in land vehicles. That means they will be unable in the near future to take advantage of the larger range it offers.

One of the military consequences of this fact is the difficulty of invading a large country, such as Russia, by land. The vastness of the area itself becomes a protection which wears down the invader and may eventually defeat him, despite any initial success in battle. This was the case with the three attacks on Russia made over land during the last 250 years: that of King Charles XII of Sweden, who, after several victories, was defeated at the Battle of Poltava, in 1709; that of Napoleon, in 1812; and that of Hitler, in 1941 to 1945. Naturally, the long line of supply, increasingly remote from the home base, exposed to constant interruption by local guerrilla bands and sabotage, adds to the hazards of military operations in enemy country.

True, the fact that land transportation is carried on in many small units also has certain advantages, since these can be quickly and readily dispersed, making them somewhat less vulnerable to air attack; it is also relatively independent of weather conditions, at least in the more highly developed regions. On the other hand, land transportation can be easily crippled by damage to the roadbed which is essential to its efficiency, and by the destruction of key links, such as bridges or tunnels, power stations, or traffic control points.



Dr. Sokol is a former Austro-Hungarian Navy officer (WWI) whose academic education extends from the Univ of Vienna to Stanford, via Mississippi State Teachers College. He has written extensively about sea power and on subjects of a geopolitical nature. His first GAZETTE article, "A Study in Ship's Names," appeared in the Feb'47 issue. He is currently Professor of International Security at Stanford Univ, and conducts seminars on the topic at Hoover Institute.

Because of terrain conditions, the need for specially prepared roadbeds and the use of shortest routes, the flow of land transportation can be predicted with comparative ease, so that attacks on it can be pinpointed and defenses against them prepared in advance.

Air Transportation

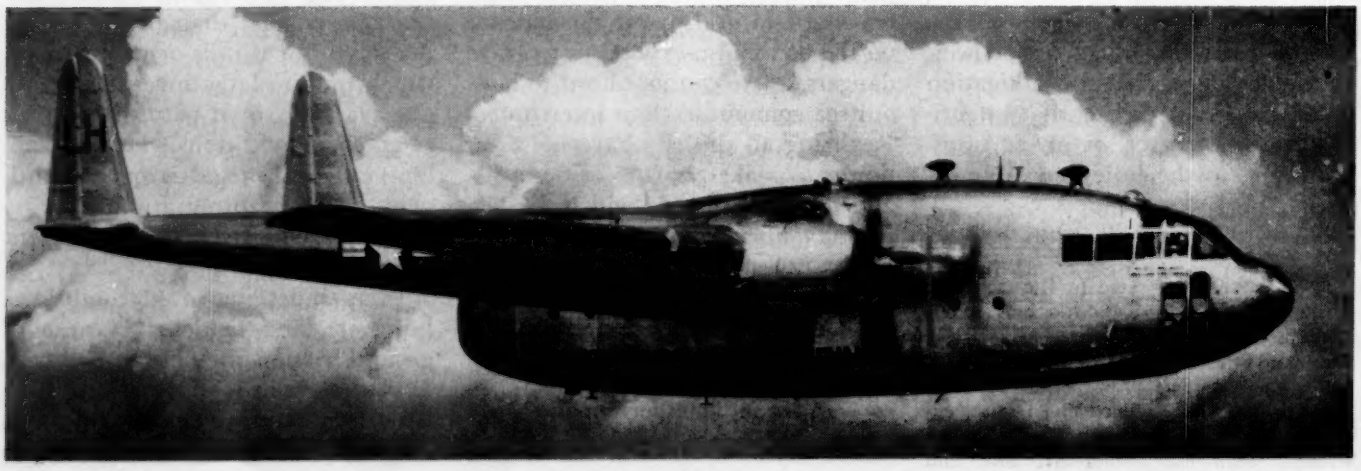
Although independent of roadbeds, airplanes require numerous and costly bases to operate. The absence of these bases makes conventional planes practically useless. But since airfields must be large, fixed in their positions, and cannot be readily camouflaged, they form good targets for an attacker. Moreover, being extremely complicated instruments, airplanes require high capital investments, large and highly trained crews, and involve high maintenance costs. Air transport is also to a considerable degree dependent on the weather, although this disadvantage is constantly being reduced by improved equipment.

Further, airplanes require a very high rate of power and a correspondingly heavy fuel consumption, greatly reducing their range and leaving them only a small cargo carrying capacity. Air transportation is, therefore, exceedingly expensive.

Because of these qualities, air transportation is not suitable for the carrying of mass goods, or of large numbers of people together with necessary equipment, tools, weapons, or supplies. But under certain—narrowly limited—conditions, if speed is of the essence, or if the destination point is inaccessible by any other means, air transportation will and must be used, regardless of cost or difficulty.

A special application of air transportation, which possesses most of the characteristics of that mode of travel in general, but in a highly exaggerated form, is that by missile.

Missiles have in common with planes a very high speed, the fact that they can reach any place on earth (and even beyond), the lack of staying power, and very low carrying capacity. This makes them even more restricted in applicability



". . . under certain—narrowly limited—conditions . . . air transportation must be used."

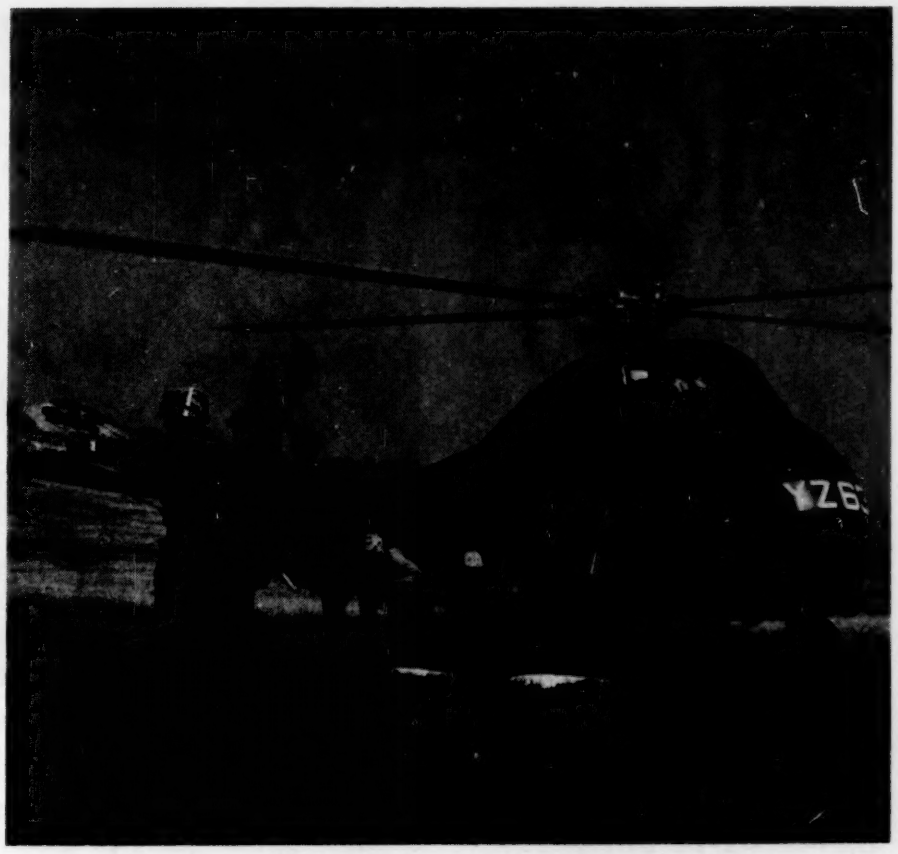
than planes, but it also renders them specially suitable as carriers of highly effective weapons, such as nuclear explosives. Since they are not meant to return to the place of origin, they can utilize their range to the fullest extent. Being small and fast, they can more easily escape detection and counter-measures than planes; but being extremely complicated and expensive, they do not lend themselves easily to mass production and use. Hence, missiles will supplement but not replace manned aircraft.

Sea Transportation

Covering nearly three quarters of the globe, the sea offers an almost continuous and connected medium of motion, needing no special roadbed. When sounded and mapped, it is practically unobstructed by terrain conditions. Ocean shipping is, and must be, relatively slow because the density of water opposes motion. Roughly speaking, maximum velocities of ships, land vehicles, and airplanes stand in the relation of about 1 : 2 : 20 (or more) to each other.

However, sea transportation requires less energy, less fuel, smaller and less highly trained crews, and fewer supporting facilities than any other form of transportation. Hence it is, and will remain, the cheapest mode of transportation, and is especially well suited to the movement of large volumes of materials and great numbers of people. A rule of thumb states that the cost of sea, land, and air transport, as far as mass goods are concerned, stands in the relation of 1 : 10 : 100.[2]

Because of these factors, most ships have a high rate of carrying capacity in relation to their own weight; for the same reason they can be given almost unlimited range. A modern cargo ship can cover 10,000 miles as easily as 1,000 without a significant reduction of its pay load; it just takes longer to cover the distance. Only if high speeds are required does power and fuel consumption increase rapidly, with a corresponding decrease in the radius of action. But these factors also make atomic power feasible for ships, giving them practically unlimited range, even at relatively high speeds.



". . . mobility can be substituted for mass."

From the military point of view, sea transportation has additional advantages, as well as some weaknesses. Among the latter are the slow speed, vulnerability because of great size, and sinkability—in contrast to land installations, but in common with planes. Yet these drawbacks are more than offset by the many valuable features it offers. These include the fact that sea transport needs no special roadbed, which makes it less vulnerable to attack and more flexible; although harbor installations are a great help to sea transport, they are not essential. The absence of specified route, dictated by terrain configurations, enables ships to approach land from several, unpredictable directions, and thus facilitates surprise attacks. A unique feature of the sea is, however, the ability of vessels to travel under its surface as well as on it, which makes it possible for them to hide from sight, minimizing the probability of detection, and again increasing the chances of surprise. Besides, the vulnerability of ships to nuclear weapons is in some respects less than that of other vehicles, because they can easily be dispersed, and because water in itself serves as a sort of protective coating against the effects of radiation.

Another unique feature of ships, which makes them specially suited for the exertion of graduated forms of pressure in the promotion of national policy, is their ability to hover near a coast, close enough for fast action, yet in international waters—a sort of no man's territory. Thus they avoid crossing hostile or neutral regions.

To illustrate these various conditions, a few studies in the field of comparative transportation may be quoted here. Although some of them were made during or shortly after the last war—when there existed a special interest in such investigations—they are still basically correct and applicable to the present situation. The place in the national economy of sea and air transportation is adequately indicated by the following quotation from S. P. Hedden and E. Slater, *Postwar Overseas Transportation,* New York, 1944:

"In the field of freight, the airplane cannot expect to achieve more than a fraction of the total transoceanic business, for the simple rea-

[2]The transportation of one ton of coal for about 200 miles during the 1948-49 Berlin airlift is said to have cost approximately $100.

son that the cost of air-cargo transport is about one hundred times the average cost of ocean transport. Air-passenger travel, on the other hand, is very little higher than first-class steamship passage. It is likely that the postwar cargo movement by air will be limited to goods having very high value, extreme perishability, or some other characteristics because of which the saving in time will outweigh the extra cost. I would doubt that the volume *in weight* would exceed . . . one quarter of one per cent (of our total foreign trade) . . . . *In value* the ratio will be higher, probably as high as 5%."

According to more recent statistics, of the 250 billion ton-miles of cargo carried across the sea in 1957, about 99.5 per cent went by ship, the rest by air. Ton-mile for ton-mile, the cost of shipping by sea was one-fortieth that of the airlift.

The same comparative situation was indicated in an address to the Institute of Transport in 1942 by Leslie Runciman, then Director General of the British Overseas Airways Corporation, when he declared that

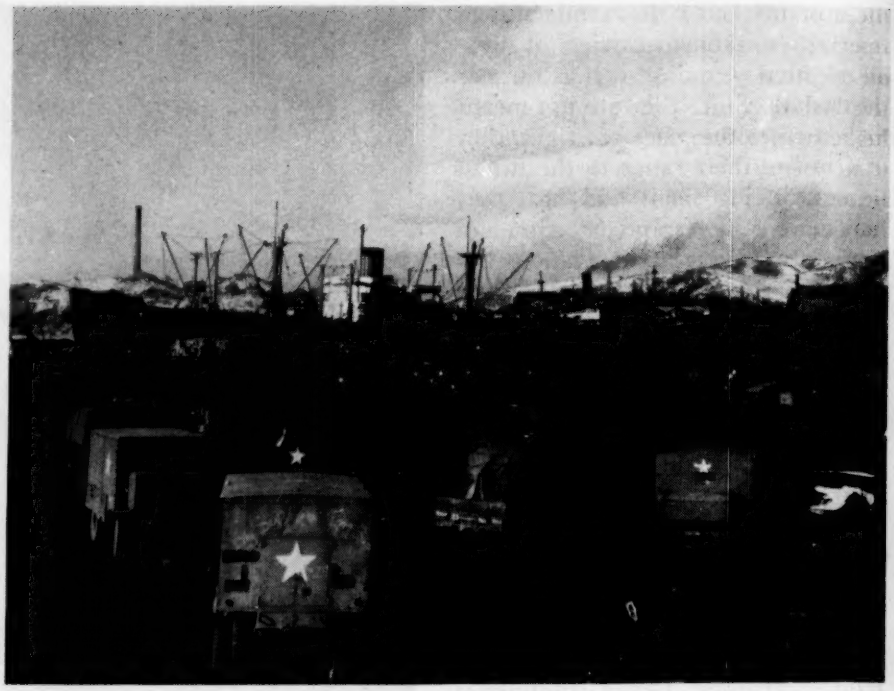
". . . *one* moderate size cargo vessel in a single peace-time year carries three times as much freight measured in ton-miles as the whole of the highly organized air lines of the United States; secondly, (that) the cost per ton-mile by air was about 30 d (pence), while the similar cost for the ship before the war was ca 1/30 of a penny." (Quoted in John S. Maclay, "The General Shipping Situation," *International Affairs,* Vol. XXII, 1946.)

The relative merit of ship and plane from a military-economic point of view was perhaps best indicated by Robert A. Lovett, in 1944, when he was Assistant Secretary of War for Air, and therefore could speak with full authority on the subject. In an article on "Airplanes for Men and Freight in Wartime," published in the *Proceedings of the Academy of Political Sciences,* Vol. XX, 1942-44, p. 137, he states:

"(Air transportation's) . . . main contribution to the system of military transport in this war is that of a supplementary *express* service, not a substitute *freight* service. . . . It is the only existing method of getting certain supplies into some parts of the world—not just getting them in on time, but getting them in at all. Its very importance in such operations (Burma Road, Berlin Airlift, etc.) has misled large sections of the public into having false hopes and into the belief that air transportation offers a quick and easy solution to the logistic problems of modern war. It very definitely does not do this. It is, and will be for several years, an absolutely necessary highly specialized but complementary part of a transport system in time of war.

"For some time to come, transport planes cannot, and will not, take the place of ships. There is, in fact, no good reason why they should. . . .

"Let us suppose that our problem is to move 100,000 long tons of supplies per month, under present wartime conditions, from San Francisco to Australia, a distance of approximately 6500 nautical miles. How many planes of existing 4-engine cargo type will it take? How many cargo vessels will it take? How much personnel? Will we need tankers? And so forth. The following simple comparison will give the answers:



". . . transport planes cannot . . . take the place of ships."

"Since planes cannot carry their fuel supply for the return trip without reducing their payload to the vanishing point, tank ships (almost twice as many as if the assignment were solved by ships in the first place) are needed to haul the necessary fuel to Australia for the planes. This is in contrast to the cargo vessels which can carry a sufficient supply of fuel for the return trip without unduly reducing their cargo carrying capacity."

When considering the infinitely larger demands for transportation which would be made in another war, it is obvious that no country in the world, not even the richest, could satisfy more than a very small portion of its total transportation needs by air alone.

In this connection, a statement of RAdm D. V. Gallery, made in 1953, comes to mind:

"It is not belittling air power to say that it can never replace sea power as the world's basic means of transportation. It is simply stating one of the economic facts of life. It costs $36 to send a ton of cargo to England by sea. The air rate may run as high as $1700 per ton. But the cost in dollars means less than

	Number	Crews	Fuel	Tankers
Surface Vessels (EC Type)	44	3,200 (incl. gun crews)	165,000 bbls.	none
Cargo Planes (4-Engine)	10,022	120,765 (flight crews only)	8,996,614 bbls. (overseas requirement)	85 (large size)

the cost to the world's limited fuel reserves. It takes 30 pounds of black oil to haul a ton of freight across the Atlantic. It takes two tons of high test gasoline to do it by air. If it were possible to organize a gigantic airlift capable of handling all our imports, we would soon devour the world's whole supply of oil."

How vital the role of ships can be in war has been reiterated often enough. Hence it will suffice to quote only one authoritative statement to bring out this importance:

"The war against shipping was perhaps the most decisive single factor in the collapse of the Japanese economy and the logistic support of Japanese military and naval power . . ." (U. S. Strategic Bombing Survey, *War Against Japanese Transportation, 1941-1945;* Washington 1947, p. 3f.)

The introduction of nuclear power for land, sea, and aircraft will, of course, enormously increase their range so that range will not be a vital problem any more. But it will be a long time yet before all vehicles, especially airplanes, will be driven by nuclear energy. Moreover, the above calculation clearly indicated that this will not, in any way, free planes from dependence on land and sea transportation. The collection and processing of the raw materials from which nuclear fuel is extracted, and of the machinery to put it to use, will again require a large amount of preliminary or auxiliary transport within a country, as well as from abroad and from overseas. Consequently, land vehicles and ships will still be needed, since only they can satisfy the demand for bulk transportation. In fact, it can be stated almost as a maxim: The more air transportation is developed, the more land and sea transport become necessary.

To quote again from Mr. Lovett's article on the subject, "On one of our principal well-established routes of the Air Transport Command, with no very long hop involved, we have to send about one ton of fuel by sea to enable the planes to carry approximately one ton of freight by air."

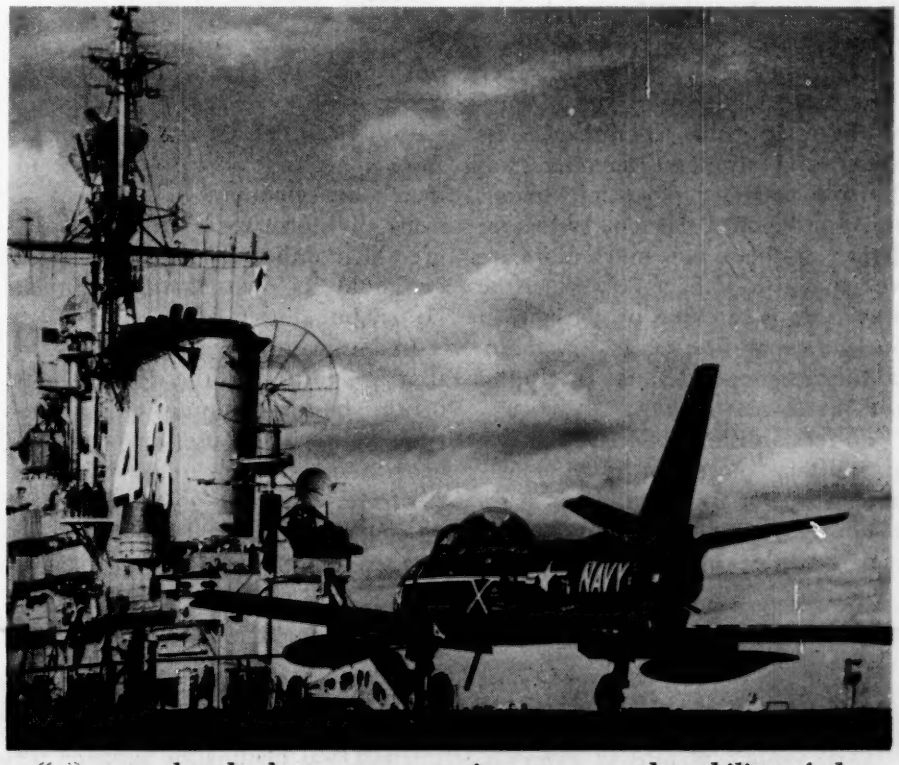
From the preceding it is obvious that each of the three modes of transportation has its distinct superiority as well as shortcomings. Each is, therefore, and must be, supplementary and complementary to the others. The problem is not to decide which one is best in a general way, but which one, under existing conditions, can perform a specific task more efficiently, quickly, at least cost, and with minimum danger, or, conversely, which of their weaknesses can best be exploited when attacking an enemy. Only if their respective capabilities and limitations are fully recognized can the optimum use be made of them, or can they be weakened at the point where it counts most.

Many transportation problems cannot be solved except by a combination of the various forms of locomotion. What each one of them separately cannot achieve, the proper coordination of their capabilities may accomplish. Hence the task of the planner is to find the best combination of possibilities for any given task. The aircraft carrier, for instance, represents such a fortunate synthesis of advantages, as it couples the long range, staying power, and mobility of the ship with the airplane's speed and independence of terrain. Sheltered and preserved in the holds of the carrier, and taken into the theater of action without using up their precious fuel, planes can be released at the last, most favorable moment, to use their superior speed for the end spurt when it really counts, can do so from unexpected directions, and over comparatively short distances.

The same goes, in a more limited way, for the missile carrying vessel. Another advantageous synthesis of land, sea, and air transport is the helicopter carrier, which allows a novel and very promising form of troop deployment. This so-called "vertical envelopment" shows how "conventional" forces may benefit from modern developments to meet modern requirements. These innovations do not do away with the necessity of maintaining land installations for launching guided missiles, nor airfields for the operation of the SAC. They only add another possibility of applying power in international relations, and thus increase flexibility and versatility.

Conclusion

Hypnotized by our nuclear capability into believing that we were safe from attack and could win any war into which we might be drawn, we have, since 1945, tended to neglect our conventional forces. As a result we had to look on helplessly while the Communists, by clever use of political methods, backed by their



". . . couples the long range, staying power and mobility of the ship with the airplane's speed and independence of terrain."

". . . a relatively small, highly mobile, combat-ready force."

overwhelming land and air power, gained control of one-third of the world. This was possible only because we lacked the armed strength for proper counterpressure, while we were reluctant to use our overpowerful atomic weapons. Even after the "limited" wars in Korea, Indo-China and Suez strikingly demonstrated the restricted applicability of nuclear weapons and the continued need for the classical team of fighting services, we closed our eyes to the logical conclusions, and returned to a military policy based primarily on "massive retaliation" by thermo-nuclear means. This was largely due to the fact that we could see no possibility of matching the Communist Bloc in the number of available army divisions.

But if the Free World could suffer these extremely painful and dangerous losses at a time when the US, its leader and strongest member, was the sole possessor of atomic bombs and of the most efficient system of delivering them, how much more are we exposed to danger now when the other side is catching up with us in nuclear capability, while still maintaining its preponderance in ground and air forces?

To reestablish an effective balance of military power, it is obviously imperative for us to build up again a sufficient strength in conventional arms, while of course keeping abreast in thermo-nuclear weapons, together with the appropriate means of launching them. Only in that way can we again obtain a power structure capable of supporting and promoting our foreign policy.

To do so it is not sufficient for us to equip our troops with tactical nuclear weapons, because our prospective opponents can do it just as easily and still maintain their own overall military supremacy. Nor is it enough to make armies "airborne," even if that were feasible on a large scale. The problem of mobility must be viewed in its entirety, comprising the dispatch of sufficient reinforcements and logistic support as well as the conveyance of a first wave of troops. For that purpose the proper combination of all possible modes of transportation is needed. However, if this is done, mobility can be substituted for mass. It is then no longer necessary to match an opponent in numbers of army divisions; for with a high degree of mobility, even a small force can hold its own against a much larger, but slower, one.

In our case, however, this means that in addition to the development of the best techniques of locomotion, we must also use our favorable geographic positions in the Eurasian perimeter, on land or at sea. This, of course, calls for the best use of our sea power. Sea power gives us a unique ability to use the world's oceanic highways to move troops, goods, and weapons over the shortest possible distances. This alone is a definite, and possibly decisive, military advantage.

Instead of a defensive wall around the Free World, we need a relatively small but highly mobile and combat-ready striking force, located in strategic positions around the perimeter of the Eurasian land mass. Permanently equipped with the necessary combination of ships, planes, helicopters, and land vehicles, it would have to be able to reach any point within at least 100 miles of its coasts in a matter of hours rather than days, weeks, or months. Organized along the time-tested model of the Marine Corps, and backed by the regular armies of the Free World alliances, such a force would constitute a more persuasive deterrent to wars, large or small, than a nuclear arsenal which is too powerful to be used. Ready to absorb the first shock of attack, threaten the rear of an assailant, or be deployed suddenly wherever needed, it could well be kept within the manpower and the economic potential of the Free World. Yet, operating under the umbrella of a nuclear stalemate which would prevent both sides from going to suicidal extremes, it would suffice to win most wars which are likely to occur.

The devising and developing of coordinated forms of transportation for maximum efficiency on the basis of existing conditions is, then, one of the crucial fields in which the traditional services, Army, Navy, Marine Corps, and Air Force, can and must work together, each contributing its own experience and special ability in the interest of the common purpose. Fortunately, the record of the past indicates that they will have no difficulty in cooperating toward this end, once this vital aspect of our power structure is fully appreciated by those who shape our policies. USMC

★ ★ ★ ★

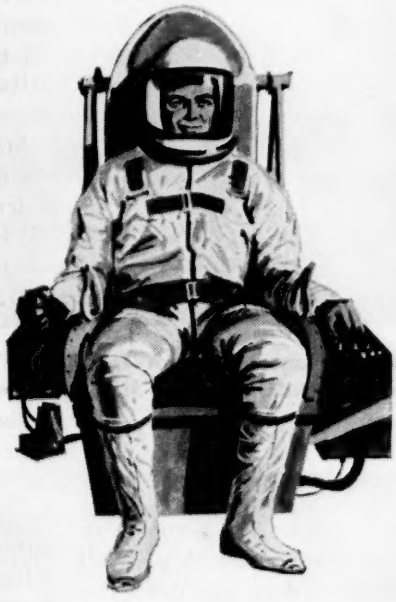
Key to Manpower

A BATTERY COMMANDER who complained loudly and bitterly every time one of his enlisted men—regardless of rank or job—was transferred, was blasting the battalion personnel officer:

"You can't transfer Jones," he sputtered, "he's one of my key privates."

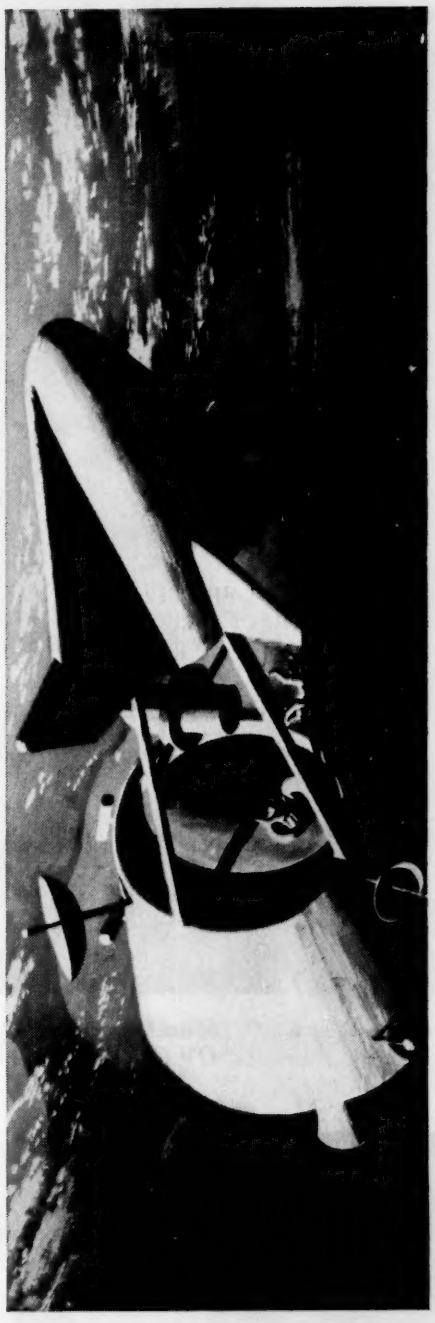
Col R. M. Wood

SPACE RESEARCH



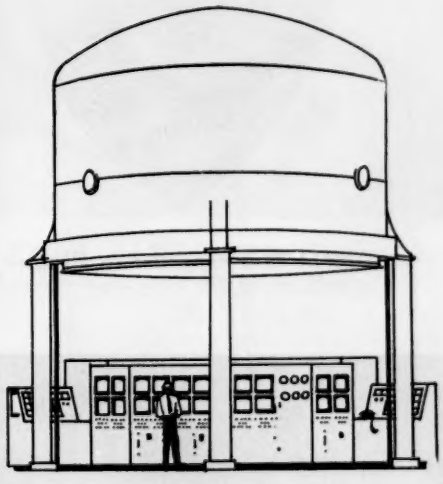
The man:

...a U.S. airman-engineer—carefully selected through rigorous test procedures from Military personnel. He will have the combination of mental acuity, superb physical condition and emotional stability necessary for pioneering in space exploration.



The mission:

...satellite observatory—a vehicle arrangement similar to this could orbit a three-man astronomical crew for several weeks. Empty fuel tank is used for living quarters. Nose section serves as re-entry vehicle for return to earth. The astronomical telescope is gimbal-mounted. External equipment shown is mounted after orbit has been attained.



The means:

...Space projects are accelerated by research equipment like the Douglas high-altitude chamber at Tulsa, largest in the U.S. In it, space environment problems can be worked out under near-operational pressure conditions, shortening the time required for development.

Depend on **DOUGLAS**

The Nation's Partner in Space Research

TOP SQUAD IN COMBAT FIRING

MCA Marksmanship Plaque

Members of the winning squad, from left, ASgt T. [Oliv] O'Flaherty, PFC Dennis Noah, ACpl J. M. Carr, Jr., Pf[T. S]

BGen S. R. Shaw, Director MCLFDC and Secretary-Treasurer MCA, presents the Association's trophy to Squad Leader Oliver.

THE MARINE CORPS ASSOCIATION'S Unit Combat Marksmanship Award has moved to the West Coast.

Besting eight of the finest rifle squads in the Marine Corps, an alert crew from the 1stMarDiv's 1/7, based at Camp Pendleton, carried home the trophy. The award, a handsome engraved plaque recognizing superior combat efficiency, is presented annually by the MCA to the winning squad of this intra-Corps competition at MCS, Quantico.

The complete unit designation of the winning squad is: 1stSqd, 3d Plt, Co "C," 1stBn, 7th Marines.

It was a clean sweep for FMFPac shooters. Second place went to the 1stMarDiv's 2dSqd, 2dPlt, Co "A," 1/9, a 3dMarDiv transplacement outfit.

Finishing in third place was the 1stMarBrig's 1stSqd, 1stPlt, Co "B," 1/4.

Oliver, Jr., squad leader, LCpl R. R. Bargenquast, PFC D. A. Chapman, PFC J. F. White, PFC D. J. T. Sajolan, PFC D. H. Constant, PFC T. L. Fay, PFC M. Patterson, PFC A. L. Goodloe, and ACpl A. Paro.

ASgt Oliver confers with his fire team leaders as the squad prepares to fire the combat course at Quantico. Strategically placed pop-up silhouette targets were downed with live ammunition.

TANKS ?

A CURRENT AND RECURRING QUESTION in Marine Corps tactics and techniques is the place of tanks in the concept of future warfare.

What shall we do with the tank? Shall the tank be abandoned as a weapon? Should tanks be pooled at higher echelon? How should Marine Corps tanks be organized? Is the present medium tank the best combat vehicle for future amphibious warfare? These and other questions surround the Marine Corps tank, creating an unhealthy air of uncertainty.

The significant question is the essential importance of the tank in an amphibious assault doctrine geared to the highly mobile demands of tactical nuclear warfare. In fact—for now, and the immediate future—it is required. Atomic-threat battlefields can serve as the stage upon which the tank—or some tank-like vehicle—will perform its finest role.

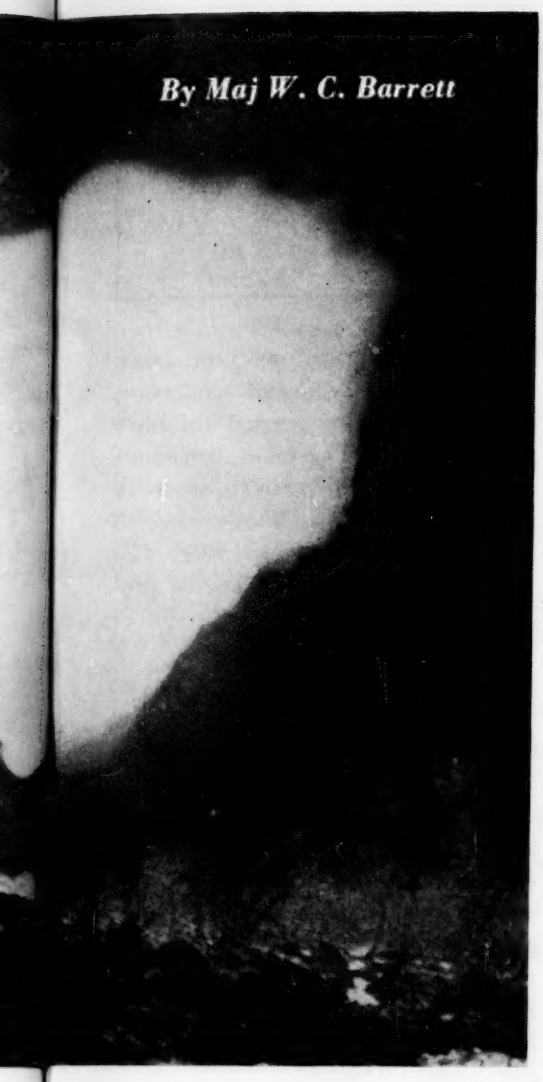
Our mission as Marines presupposes a striking force capable of violent assault action and strong staying power under nuclear or non-nuclear conditions. The qualities that provide these are accurate, destructive firepower, mobility, shock action, and armor protection.

Tanks, since they combine heavy armor with a mobile weapons system, are ideal offensive weapons. Their mobility, flexibility, armored firepower and shock effect give to warfare a combination of speed and violence difficult to equal. Tanks, when properly supported, possess tremendous staying power. Speed, staying power, and the violence that they impart to combat have, in the past, made tanks invaluable in amphibious operations. The value of tanks in future amphibious operations will be enhanced by the nature of the future battlefield.

Tanks are required for tactical atomic warfare. Battlefield mobility, protection, highly effective firepower, reconnaissance capabilities, ease of control, and rapid reaction time are tank characteristics.

Tactical mobility is the key to success on the dispersed battlefield. Inherent mobility and relatively high battlefield speed enable tanks to mass rapidly for penetration of enemy formations or exploitation of friendly atomic fires. Tanks can quickly resume a posture of passive defense by separating. Further, rapidly moving tank formations provide difficult targets for the enemy to destroy, or even find.

As for protection on the future battlefield, the tank provides its crew with some immunity from the effects of nuclear explosion, as well as from conventional munitions. It assures them protection against certain effects of nuclear explosions which would be lethal to others. This enables the tank to lean into friendly nuclear fires, poised for rapid exploitation, while, at the same



By Maj W. C. Barrett

time, enjoying protection from enemy nuclear attack.

Unit separation creates a wide open battle area in which finding targets and developing intelligence is difficult. Constant deep reconnaissance by units strong enough to operate independently against enemy armored screening forces is required. Tanks are indispensable in this phase of warfare—as they are in counter-reconnaissance and screening friendly battle areas. The tasks of screening and counter-reconnaissance will be monumental on a thinly-populated, fluid battlefield. Brief, violent engagements will occur; rapid, violent reaction is a prerequisite, and this the tank can provide.

As a result of an extensive radio communications system, tanks are easy to control. Reaction to command is immediate and the inherent mobility, armor and firepower enable the tank or tank units to counter enemy actions rapidly and violently.

From what has been said it should be allowed that the tank (or some similar type armored combat vehicle weapons system) has a place on the future battlefield, nuclear included. Let us then state its future mission, and list some of its tasks to fulfill that mission.

The mission of Marine Corps tanks will remain the same. Tanks, along with other combat and combat support elements of the amphibious landing force perform their mission when, by armored firepower and maneuver, they close with and destroy enemy forces, fortifications, and materials.

In fulfilling their over-all mission, tanks will be found in one of four roles: 1) direct support of infantry; 2) defeat of enemy armor; 3) limited independent operation; 4) supplementing artillery fire.

Tanks are well-suited for many tasks. A partial list would include deep penetration to effect link-up; rapid exploitation of nuclear weapons; armored battlefield surveillance; reconnaissance and counter-reconnaissance; counterattack; mobile defense; crossing contaminated areas as an exploitation force or as monitors. Other specific tasks for tanks in either atomic or non-atomic combat certainly suggest themselves to you.

Should (as we hope) the threat of nuclear devastation deter "all out" wars, there is no doubt as to the advantages of tanks in conventional, small-war operations which are so much a Marine Corps specialty. History testifies as to its battlefield ability. In the peripheral "brushfire" war, where terrain permits, the tank is an essential weapon. Its power will greatly enhance the swift, decisive conclusion of such wars. In these conflicts, firepower and shock action are paramount. Awesome these characteristics are, and they produce terrifying psychological effects on dissident populaces and irregular forces common to this type operation. Tanks used in a reasonable number to back up small, mobile landing forces, were vital in Lebanon—a poor tank area. They can do even better.

We cannot ignore the limitations attending the use of tanks in any type operation. Much is made of these limitations—too much perhaps. Trained crewmen can live with, and learn to minimize, noise, poor visibility, weight and bulk. But there are other factors which actually impose operational limitations: the tank is sensitive to terrain and weather conditions; it presents a considerable logistics burden. The latter is most apparent in amphibious operations.

Large quantities of supplies are consumed by tanks in any operation; maintenance demands are al-

ways high. In amphibious operations, the problem is further complicated by: 1) possible unavailability or shortage of assault shipping to land tanks; 2) difficulty of furnishing early re-supply by air or surface when the build-up ashore is sensitive and critical; 3) lack of maintenance facilities.

In determining whether we should or should not abandon the tank as a weapon, limitations must be weighed against advantages on the battlefield. The need for a particular weapon is seldom determined solely by logistical considerations. The infantryman's rations constitute a tremendous supply problem but we need him.

Actually, we develop the hardware to fight with by considering many factors: mission, objective, and enemy tactics and techniques are a few. If there is a need for a certain weapon—like tanks—for rapid, efficient conclusion of a mission, logistic considerations seldom preclude the use of that weapon. Considering the mission and objectives of the Marine Corps, and the probable enemy tactics and techniques, it is apparent that the tank is a prerequisite in the Corps' arsenal.

Maj Barrett has definite feelings about the tank. To him, it is not a "sick beast." Commissioned in 1945, his background in this subject began when he joined the 1stTkBn, 1stMarDiv, in 1950. His next assignment took him to the Army Armored School, Ft. Knox, Ky., and from there back to the 1stTkBn, which was then in Korea. After several intervening assignments, he returned to armor—this time to the 3dTkBn, 3dMarDiv. He is now Asst OinC, Personnel Procurement, 8th MCRRD, New Orleans.

What then of tanks? We need them—even with their logistics burden. In the foreseeable future they cannot be done away with. But perhaps the existing models require design changes to better suit the needs of the Marine Corps.

The Marine Corps needs a vehicle to combat tanks, reconnoiter in force and, above all, afford maximum support of the infantry in the attack.

The principal role of Marine tanks is the direct support of infantry; this must be the dominant consideration in the design of a tank to meet Marine Corps needs. Therefore, it follows that a primary need is an assault gun to destroy strong battlefield fortifications and cause casualties. As additional armament, machine guns are needed for anti-personnel use. The main armament must possess penetrative power to defeat armor of any known tank to fulfill the anti-mechanized role. The armament must afford close-in protection against enemy personnel bent on tank-killer missions. We need a highly responsive, simple, easy to operate and maintain, fire control system such as the ranging machine gun or spotting rifle.

For close combat and assault missions the vehicle must have all-around armor protection. The weight and configuration of the armor should provide absolute protection against all weapons including the maximum density direct-fire weapon we may find on the front of our potential enemies.

Any increase in the strategic and battlefield mobility of the vehicles would of course be welcomed. These could result from the reduction in size and weight of armor, as well as from future technological developments in armament and automotive components.

Automotively, the vehicles should afford greater range on less fuel, and considerably less maintenance. The complexity of the automotive equipment must be reduced to allow unskilled mechanics with detached tank units to keep the maximum number of tanks operative.

The Marine Corps needs an austere tank to perform its missions efficiently without sophisticated, vulnerable gadgetry and without unnecessary refinement. These characteristics are within present technological and production capabilities; they are wholly compatible with the "users" requirements within the US Army. The latter is important since the Army is charged with the devel-

Main tank mission is direct support of infantry

opment and procurement of tanks. It behooves the Marine Corps to influence the Army's future tank development so that we obtain a satisfactory armored combat vehicle for the conduct of modern amphibious warfare.

Tank organization within the FMF deserves discussion. For some time now, tank organization has been an enigma. Present tank organization does not supply the combat power to support a Fleet Marine Force of three divisions, each with three regiments plus a service area. This inadequacy is magnified by unit separation, a concept which allocates combat means to each separate task groupment.

Assuming that division and corps-size operations will occur in the future, it is conceivable that at least one company would be needed to support each separated regiment in addition to one company for support of the service area. An engaged division should have a tank reserve for exploitation and to serve as a mobile antitank defense. A five-company battalion for each division, with four platoons per company, is the optimum tank organization for future operations.

Such an organization gives maximum flexibility. The entire tank strength, or a considerable portion thereof, could be employed under centralized, division control to

achieve the decisive striking power; when desirable, tank control could be readily decentralized. If required, each regiment could be supported by a tank company which, in turn, could be further deployed. Each battalion could be supported by one platoon—this would still leave a platoon under regimental control for exploitation or counter-attack. Other combinations present themselves: weighting the attack—adding strength to local counter-attacks.

This organization also affords rear area units a potent defensive weapon against marauding enemy forces which penetrate the open battle area, or carry out vertical envelopment operations to strike the weaker non-combatant service elements. Further, tanks assigned to the service elements are capable of protecting and keeping open surface routes of supply from the service area forward.

To ensure the continued strategic mobility of the division, these tank battalions are best located at force level. When combat missions are assigned, the tanks should be assigned to division or division units whenever it is physically possible to employ them.

So long as a continued need for the diversified, two-prong amphibious assault exists, and we maintain an across-the-beach capability, we must have a strong force of the most suitable tanks available. These should be organized to support effectively our concept of operations. Tanks are not obsolete; there is no substitute. They are capable of outstanding performance on the atomic battlefield as well as in conventional war. They contribute to warfare the principal ingredients for victory: sustained combat power and violence.

USMC

★ ★ ★ ★

Had His Ups and Downs

LIEUTENANT JOHN MARTIN STROBAGH holds a unique distinction in Marine Corps history. He was the first officer to resign his commission. The reason—seasickness.

On 10 Nov 1775, the Continental Congress assembled in Philadelphia, passed a resolution giving life to the US Marines. It read in part: "Resolved, that two battalions of marines be raised . . . that particular care be taken, that no persons be appointed to offices or enlisted into said battalions, but such are good seamen, or so acquainted with maritime affairs as to be able to serve to advantage by sea when required. . . ."

John Strobagh hurried to answer this call. He was quickly accepted, and appointed to the rank of lieutenant.

Unfortunately, John soon realized he wasn't cut out to be a seagoing Marine.

On Tuesday, 14 May 1776, Congress, informed of his unhappy situation, solemnly decided:

"Martin Strobach (STROBAGH), lieutenant of marines on board the *Hornet* sloop, finding the service by sea disagreeable to him, and apprehending he can be of more use in the land service, begs permission to be discharged from the present service he has engaged in, that he may apply for a lieutenancy in the Pennsylvania artillery company, where there is a vacancy, which he is encouraged to make application for;

"Resolved, that leave be granted to discharge him."

So released he saw action at the battles of Brandywine and Germantown. His career was cut short 2 Dec 1778, when he died of an unknown disease.

D. F. Conners

BUILDING THE BATTALION STAFF

By Lt Col H. D. Pratt

"WELCOME ABOARD, LIEUTENANT. I'm sure the Executive Officer has told you what your assignment will be."

"Oh, yes, sir. I'm to be the new Battalion S-2."

"Fine. It's too bad that your predecessor got away two weeks before your arrival, but I'm sure Sgt Miller can explain everything. Just go over the office files and if you have any questions, don't hesitate to go to the Executive Officer with your problem. We have a landing exercise coming up in three weeks, so you'll have to move right out. Good luck!"

And so starts the career of many a budding young staff officer. With the increased responsibilities at the battalion level, brought about by the atomic battlefield and unit separation, we cannot afford such casual handling of staff assignments. Let's take a look at the battalion staff, the group which plans for and supervises the training, operations, logistic and administrative support of as many as 1,500 Marines. See chart, next page.

Further "additional duty" staff functions will be parceled out among these same officers, such as Legal Officer, ABC Defense Officer, Mess Officer, Special Services Officer or Embarkation Officer.

At this point, the comment might well be that there's nothing wrong with this set-up: 14 officers are certainly enough to do the job. If we assume, as the T/O does, that each of these billets is filled by a trained and experienced staff officer, there is little doubt that this staff could provide the battalion with the planning and supervision required. But consider first the experience level of the staff:

2 Majors, 1 WO—10-15 years total service: WWII and Korean combat experience probable; previous FMF staff duty very likely; Junior School training probable for majors.

4 Captains—6-10 years total service; Korean combat experience probable; previous FMF staff duty rather unlikely; Junior School or Communications Officers' School training possible.

4 Lieutenants, 3 Navy Officers—1-5 years total service; previous combat or FMF staff experience unlikely; basic officer training.

Add to this the probability that 1) the battalion will be below authorized strength in officers and 2) over half of the company grade billets on the staff will be filled by lieutenants less than one year out of Basic School. The resulting picture of the *actual* battalion staff looks more like this: four to five officers with previous combat and staff experience assisted by seven to ten lieutenants with basic Marine officer or Navy staff corps training.

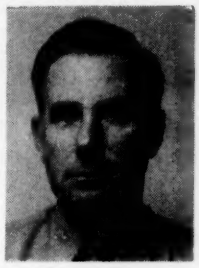
The concept of employment for the Infantry Battalion (Provisional T/O) contains the following statement: "With the separation and wide frontages necessary under the threat of atomic weapons there is a great tendency toward the formation of small combined-arms teams built around the Infantry Battalion." To build a staff capable of handling this type of operation will require some careful planning on the part of the commander and his more experienced staff members.

Achieving this goal involves two separate steps: first, selecting and schooling junior staff officers from among the lieutenants in the battalion, and second, providing continuous and progressive training in staff functioning to the entire staff. The first step requires that the executive officer work closely with the company commanders in determining which of the lieutenants are best suited for staff assignments. By selecting from among the platoon leaders of the battalion, the commander is assured that the prospective staff officer is fully aware of the good and bad aspects of the battalion staff work as far as the troops are concerned. By this means he

also acquires a staff officer who is a "known quantity" to the majority of the officers in a battalion. There is perhaps only one more thing to be said about the selection process; with the present turnover of officers in the FMF, the wise commander is looking for reliefs the day he assigns a staff officer.

The schooling of staff officers, preferably prior to assuming their duties, should be a constant objective. It is highly unlikely that formal school training will be possible at the battalion level, but every effort should be made to send selected officers to Division and Landing Force Training Unit schools. The desirability of having the prospective staff officer receive some schooling points up the necessity for selection of suitable reliefs well in advance of detachment. Perhaps the question arises, "Why all this emphasis on selection and training of staff officers? Good platoon leaders and company execs are just as important, if not more so." This is very true; however, our Basic School syllabus is aimed primarily at turning out well trained platoon leaders; instruction in staff functions is comparatively limited.

The need for a progressive and comprehensive training program for the battalion staff is equally as important as the company training schedules. Without such a program, the staff sections tend to become immersed in their own limited specialties and lose sight of the broader problems which require the joint efforts of the entire staff. Probably the best training device for the staff is the Command Post Exercise; however, it is difficult to pull the staff away from its day to day tasks to run frequent CPX's. A recommended substitute is the staff planning problem executed in the command post and on top of the normal work of the headquarters.



LtCol Pratt was assigned to the 1stBn, 8th Marines as a platoon commander three months after he received his commission in 1941. Fourteen years later he returned to the same outfit—this time as CO. In that assignment he observed first hand the problem he discusses in this article: development of qualified staff officers is more difficult than finding good platoon and company commanders. A graduate of the Univ of California at Los Angeles, he is now G-1, MCS, Quantico.

The first step is the selection of an area for which the desired aerial photo and map coverage can be obtained from local sources. Then, with such assistance as is desired from Regiment, the Battalion Commander and Executive Officer derive a mission for the battalion within the selected area. Regiment may be requested to establish realistic shipping allocations, supply levels and a troop list from which attachments may be authorized.

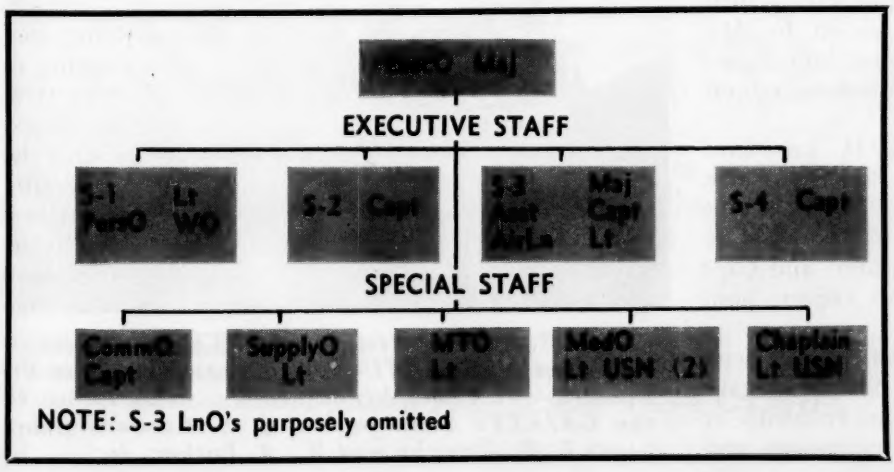
The problem is now ready to be turned over to the staff for planning. The executive officer must establish appropriate deadlines for the preparation and presentation of initial staff estimates and the commander's estimate. The full Staff Manual treatment is highly recommended in preparing these estimates. While this procedure may be considered of limited value at the battalion level, since there is seldom time or facilities available for such methods in the field, it has real value in a staff planning problem. The detailed and formal method should be used for the same reason it is used at the Junior and Senior Schools: to condition the staff officer to a logical and orderly approach to the solution of military problems.

Once the company missions and zones of action have been determined, the company commanders should be asked to present their detailed requirements to battalion. A study of the company requirements should make apparent any shortcomings in the initial staff planning. The last step is the preparation of a rough operation plan for the battalion, including all principal annexes. Again, the company commanders should be invited to attend the critique of the rough plan.

The planning problem, as stated earlier, should be carried out on top of the normal headquarters work load. After all, this is essentially the manner in which most amphibious planning is done. It is not necessary to operate any field communication nets if the local phone system will sustain the added traffic. The basic idea of the problem is to train the staff with the least possible disruption of regular work throughout the battalion.

The commander need not be worried about finding the right man. The current graduates of Basic School are as good as any that ever entered the Corps: highly motivated and with a sound basic training. To assure himself of the kind of staff support he needs, he has only to:

a) select carefully from among his junior officers.
b) select early so as to allow time for indoctrination.
c) plan for the training of his staff along with the rest of his unit.
d) make the training as realistic and comprehensive as time and facilities will permit. USMC



NOTE: S-3 LnO's purposely omitted

Officers of San Francisco Bay Area Chapter of MCA examine a membership campaign poster. From left: Capt M. J. Styles, 1stSgt R. E. Stokes, Capt T. Horstmann, Col W. E. Barnes and LtCol H. L. Mabie.

THE MARINE CORPS Association's new San Francisco chapter celebrated with a Founding Dinner 25 Sept at the Marines' Memorial Club. The scheduled speaker was Eugene L. Burdick, co-author of the best-selling book, *The Ugly American.*

Formation of the San Francisco Bay Area chapter, one of the first in the nation, was inspired by MajGen James P. Berkeley, CG, Dept of the Pacific. His first call brought out 100 Marines interested in having their own chapter of the only professional society for Marines. He appointed nominating and constitution committees. At the second meeting the following officers were elected:

Col W. E. Barnes, Dir, 12th MCRRD, president; LtCol Howard L. Mabie, I&I, 7th Inf Bn, San Bruno, vice president; 1stSgt Robert E. Stokes, Marine Corps Supply Forwarding Annex, secretary; Capt Theodore Horstmann, Area Auditor's Office, treasurer; and Capt M. J. Styles, District Procurement Aids Officer, business manager.

At a dinner meeting 20 June, when 50 chapter members attended, Gen Oliver P. Smith of Los Gatos gave a magnificent address on "Some of the Problems of Command and Leadership." Former sergeants and officers of his command in Korea swarmed around him afterwards with their congratulations.

Encouraged by the reaction to the initial meeting, Col Barnes directed a membership drive that would reach all regular, reserve and retired Marines of all ranks in the Bay Area. The chapter, he said, was taking the MCA into the field to increase the professional stature of a Marine and his pride in being one. Quarterly meetings, with civilian attire the uniform of the day, would afford members a professional forum of high caliber and information level.

Mr. Burdick's prepared address said the current Laotian situation showed that generally our foreign aid program in Southeast Asia was not in balance.

"In eight years Laos has received more of our foreign aid per capita than any nation," he said. "Before you can even talk about a country's industrial position and military strength you must have an economic base and native education and ability to employ the resources."

Laos, he said, had not developed a guerrilla warfare capacity. "When we were writing *The Ugly American* we found that not one high ranking officer in the French Mission to Laos (that resulted from the Geneva Conference) had read Mao Tse Tung's book on guerrilla warfare. Nor had they in Viet Nam earlier."

Burdick said the literacy problem in southeast Asia was similar to that of India; illiterate people cannot read instruction books that go with machinery; and they do not have the understanding to run a machine shop.

The danger of encroaching aggression in Southeast Asia, he said, made all the more necessary the force-in-being of a modern, thoroughly equipped and well-trained balanced fleet as our best deterrent capability.

LtCol John L. Hampton

VTU 12-51
Orinda, Calif.

Col H. R. Strunk, Asst Dir, 1stMCRRD, congratulates New York's VTU(S) 1-39 proficiency award winners. MCA membership and a subscription to the GAZETTE went to Maj J. S. Czestochowski; Capts E. R. Murphy and W. A. Luther, Jr.

for the NAVY'S famed BELL HUL

Soon you'll be seeing it — that Bell "Do-all" of ship and shore, the HUL, packing a brand-new Allison power plant. This famed helicopter, distinguished performer in the Arctic and Antarctic, will be carrying 250 turbo-shaft horsepower, cruising at 100 knots, ranging over 200 miles with a payload of 1000 pounds and pilot. With these advances, plus its hover ceiling of 15,000 feet, its 1300 feet-a-minute maximum rate of climb, the newly designated HUL-2 will be a superior helicopter in every respect. Look for the Bell HUL-2, in such missions as patrol and rescue, IGY, ice breaking, and general utility work, to beat all comers in the light helicopter field.

The HUL-2 turbo-shaft engine is one of the easiest to maintain ever developed. It runs on any of several low-cost fuels, and promises to yield marked economy of operation. In addition, most of the HUL-2 components are interchangeable with those of the HTL and HTL-7 series —making possible swift production and early delivery to the Navy of a light turbine-powered helicopter for training and utility missions.

For America's Armed Services Bell builds the most reliable helicopters in the world.

BELL HELICOPTER CORP.

FORT WORTH, TEXAS • SUBSIDIARY OF BELL AIRCRAFT CORPORATION

LIMITS ON THE ATOM?

By Col J. O. Bell

FOR SOME TIME, WE HAVE BEEN reading and studying about two types of wars: 1) general or all-out war, and 2) limited war with tactical atomic weapons. More recently, a third and much older type has come back into the picture and gained many advocates. It is limited war with no nuclear weapons—large or small.

At the outset, one thing should be made crystal clear. If our enemy chooses to use nuclear weapons, we will be compelled to resort to them also. Preventive measures must be taken.

This makes it pretty rough on us because we have to be prepared to fight on the enemy's terms without knowing these terms in advance. This is like being challenged to a duel with the challenger demanding choice of weapons, time and place. Although he is expert in all weapons, he refuses to state in advance which conditions will be chosen. This leaves the challenged no recourse. He must get equally good or better weapons and learn to use them well. Money and time become critical factors. Such a situation grows painful when you realize that your enemy is getting stronger and better all the time. Finally, there may not be a fair and helpful countdown preceding the first shot! All this is known in our present world situation as the "lead-time" race.

To return to limited war, much has been written on the subject in recent months. The topic does provoke spirited discussion but there appears to be no general agreement on just what a limited war is. Moreover, employment of tactical atomic weapons in limited war continues to be uppermost in our thinking and constantly in the limelight.

At first look, the employment of atomic weapons appears most inviting, and rightly so. With good intelligence and continuing tactical reconnaissance, judicious and timely employment of such weapons enables the user to pinpoint and destroy enemy strong points, troop concentrations, airfields and missile launching sites with great facility. Entire areas can be "sanitized." With tactical mobility never before achieved through the air and on the ground, Marines can land in more favorable areas. Troops and supporting weapons maneuver to positions from which the enemy can be hit again and again. Before he recoils from one blow, he is struck again from one or more different directions. In the end, the mission is accomplished in much less time with fewer casualties to ourselves. Marines will recognize this as part of our doctrine for modern amphibious operations known as the "vertical assault." This is the tactic made

possible by the helicopter. Some of us, however, tend to associate this doctrine exclusively with employment of atomic weapons because the helicopter made dispersion of the Landing Force possible. Dispersion was vitally needed both afloat and ashore because WWII type amphibious operations had long since been outmoded by atomic weapons. Nevertheless, it must be borne in mind that the helicopter greatly facilitates amphibious operations using conventional high explosive weapons. Vertical assault applies equally to both types of wars—nuclear or H.E. A helicopter-borne force capitalizes on speed, flexibility, and surprise never before envisioned in amphibious operations.

Advocates of limited nuclear warfare elaborate on the many such advantages. In addition, some have pointed out that:

1) Restrictions and agreements can be observed and enforced when employing tactical atomic weapons.

2) Limited war with atomic weapone will not necessarily touch off a thermonuclear holocaust.

3) Radiation effects will not be bad.

4) Without atomic weapons we will be hard pressed to counter mass attacks of enemy troops and armor.

At second look, however, the employment of atomic weapons in limited war may not be so inviting. Here are some important questions that might be considered:

1) What is limited nuclear war, or what is a tactical atomic weapon?

2) Can we agree with our prospective enemies what the upper yield limit will be?

3) In the event that we could reach such an agreement, what assurance have we that these agreements could be enforced: What is the penalty for violation and how is it applied? What happened with violations of the terms of the Korean Armistice Agreement?

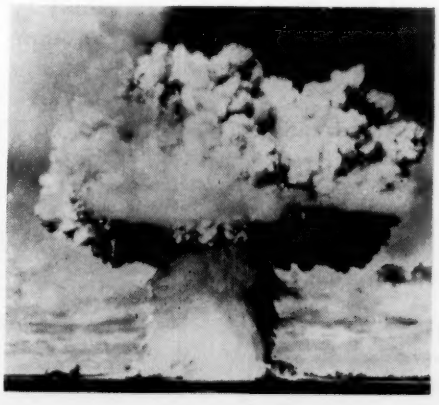
4) Will we use tactical atomic weapons against an enemy who has none? If so, why?

5) What will be the range limitations on the delivery means, if any; i.e., can IRBM's be used to deliver tactical atomic weapons?

6) What would be the repercussions if some of our weapons proved to be unreliable, and accidentally struck a friendly nation?

7) What restrictions will there be, if any, concerning employment of atomic weapons around cities? Assume that we are fighting on foreign land in defense of a friendly power, that we have initiated employment of atomic weapons, and that our enemy has countered with atomic weapons with no particular regard to the effect on cities; what are the repercussions?

8) What is the likelihood that a limited nuclear war will set off a thermonuclear holocaust?



Who holds the answers to these enigmatical questions? Are there any to be found? The writer in posing them makes no claim to know the real answers, but raises them in the hope that constructive thinking will be stimulated and discussions will follow that will point up the futility of *initiating* the employment of atomic weapons in limited war.

Next, turning our attention to nuclear radiation and its effects upon man, other living things and our environment; we come up against what is mysterious and awesome to the man on the street. We have heard that nuclear radiation can hurt every living thing, causing sickness and death; that it can last for long periods of time and make vast areas untenable for human life. Now we are beginning to hear more about another insidious effect relating to genetics—the effect on children born in future generations. This particular subject is thoroughly discussed in a recent unclassified report of OEG (Operations Evaluation Group) entitled, "The Effects of Radiation on Populations," which all military men should read. Here are some of the main points disclosed by this report in the Introduction and Summary:

"This report discusses the possible effects on present and future generations of the exposure of human populations to penetrating radiations. This subject is widely associated with the effects of nuclear weapons and has been the subject of much public discussion and opinion, not all of it accurate.

"Although the more severe local effects of a nuclear detonation, such as radiation death or radiation sickness are comparatively well known, use of nuclear weapons may also result in widespread and prolonged exposure of whole populations to radiation. For example, the detonation of a nuclear weapon in the northern hemisphere will raise the radiation level throughout the hemisphere with effects—which can be estimated—on the health and survival of both living children and those to be born for generations to come. These long range effects will not be confined to the enemy population; they will be felt by our own and that of our allies as well.

". . . even very low levels of radiation can cause discrete hereditary units called genes to change, or mutate, and that eventually such mutated units will cause a death in a future generation. These genetic effects are unimportant if all those

Col Bell wrote this article to encourage further discussion and to present the side of the subject that is less often voiced: "limited wars must be kept limited and discriminating firepower must be applied." A Marine officer since 1940, he has been in charge of Marine training programs in guided missiles at Johns Hopkins' Applied Physics Laboratory and the Naval Ordnance Test Station, China Lake, Calif. He is presently Marine LnO, Guided Missiles and Atomic Energy, OpNav.

exposed to radiation are killed as a result of the exposure. But if those exposed survive, the less-than-lethal exposure may result in the serious impairment or death of some of their descendants for many generations. Even though under mild conditions of exposure the effect on the death rate in any one generation may be small, the cumulative number of deaths in all affected generations may be very large.

"Although the reproductive capacity of man is small, it is apparently sufficient to permit a several-fold increase in the mutation rate, and hence the radiation dose rate, for several generations without catastrophic effects on the population. Thus, peacetime levels of nuclear fallout or other radiation are probably not a real threat to the survival of man as a species. This reassuring conclusion may not hold, however, for wartime levels which may be sufficient to double or triple the rate of spontaneous mutation, and so completely upset the biological balance. (50r is one reasonable estimate of the amount of radiation needed to double the spontaneous mutation rate.)"

Spontaneous mutation referred to above is mutation from natural causes, a subject much discussed. Possibly the outcome would be as predicted by this report; possibly, less severe effects would result. Nevertheless, serious thought and consideration is indicated before employing nuclear weapons in war. The more we learn about radiation, the more it will affect our decision to use or withhold nuclear weapons in limited wars.

As to whether we would experience great difficulty in fighting a limited war against massive troop and armor attacks without atomic weapons, I think that military history can speak for itself. There are many instances

where units have held out against numerically superior forces. Marines are not neophytes in this field. They have stopped such attacks before, and can do it again. It simply requires a better fighting man, superior mobility, weapons, and equipment.

We already have some new, highly effective H.E. type weapons. We'll get more in the future, running the gamut from a new rifle to rockets and missiles—to say nothing of battlefield surveillance, target location equipment, radars, integrated communications systems, and a whole host of other things to be used in the air and on the ground. Let us not deceive ourselves about the effectiveness of new H.E. weapons. They'll be well able to repel any kind of attack or support us adequately in limited warfare without atomics.

In summarizing, these are the main points to remember:

1) It is highly doubtful that nuclear weapons could be *limited* in limited war. The enemy's definition of limited nuclear weapons may not be the same as ours; certainly, the definition of limited nuclear weapons must not be confused with the definition of limited war.

2) Radiation effects may be disastrous, not only to one particular country, but also to the future of mankind.

3) We must prepare to fight different types of wars with different types of weapons.

4) Our air, ground, and naval weapons development programs for limited war must produce at least two types of warheads for each weapon—atomic and high explosive.

5) We believe we can win any type of war fought with either atomic or H.E. weapons.

6) We recognize the serious involvements in *advocating* or *initiating* limited war with so-called tactical atomic weapons. USMC

★ ★ ★ ★

Quick Time

DURING THE LATTER part of 1950, many inactive reserves called back to active duty were assigned to Casual Company, located in the 16 area at Camp Pendleton, awaiting further assignment. The morning training schedule for the Casual Company called for a period devoted to close order drill. On one such morning, a young corporal was called upon to conduct drill. It was quite noticeable that he was very nervous. After receiving the order, the corporal faced the small formation of privates first class and privates, remaining silent for a few moments, and then in a loud voice commanded, "Close, Order, Drill."

AGySgt A. M. Courteau

In the Old Corps

SHORTLY AFTER the 1stMarDiv's return from Korea in 1955, I was serving with the 3d Bn, 5th Marines as a company clerk. At the time, good clerks were as hard to get as the Medal of Honor and we were overworked trying to keep up with the changes during the reorganization period. One day we received a call from battalion headquarters informing us that they were transferring one of their clerks on to us. The First Sergeant, suspicious of the transfer and not one to accept a pig-in-a-poke, requested the man's SRB. After glancing at his record, the Top rushed into the captain's office and told him that he didn't think it wise to accept the new man.

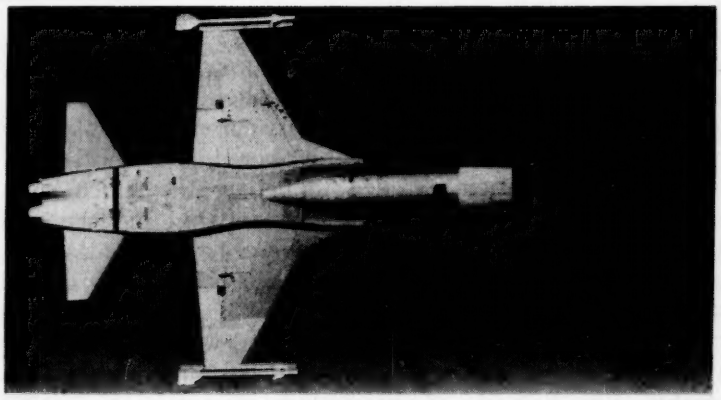
When the CO, an old salt himself, questioned the Top's decision, the First Sergeant grumbled, "Well Sir, for one reason, the man is on mess duty. Why! The last time I can remember a clerk being put on mess duty was back around 1936!" The CO calmly looked up from his desk and asked, "How long were you on, Top?" We got the new clerk two days later.

Cpl. J. E. Williams

FREEDOM FIGHTER

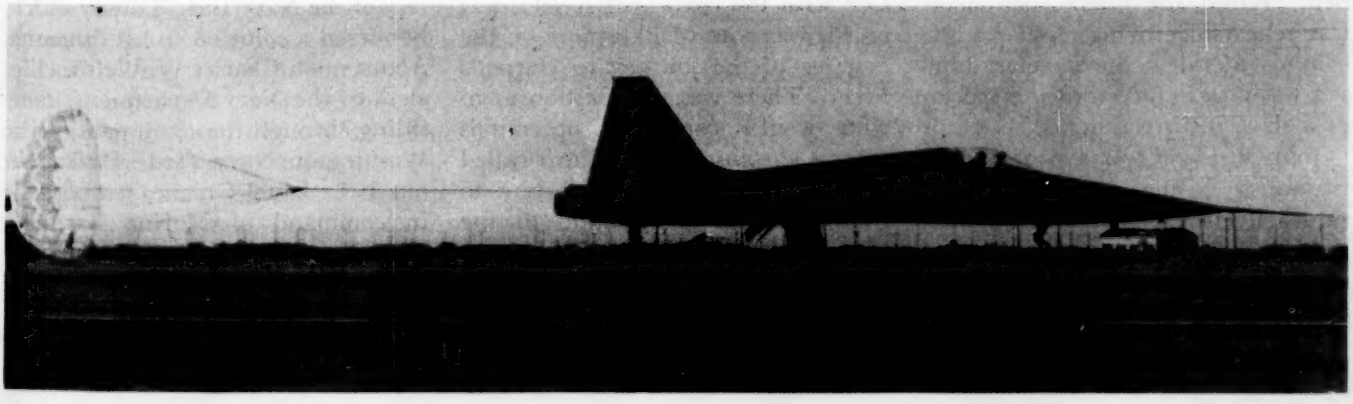
A needle-nosed, supersonic fighter with an hour-glass figure is being developed by the US to provide allied nations with a low-cost counterair weapons system.

The lightweight, all-weather jet is named the Freedom Fighter. It is primarily an air-to-air missile platform, but can deliver bombs as well. Equipped with leading edge wing flaps and drag chute, it can operate from short fields. With a JATO booster it can be zero-launched from hidden positions.



Developed under contract by Northrop Corporation, it is the first US airplane designed specifically for NATO, SEATO and other allied nations. Plans are to manufacture it in those countries. Unlike contemporary fighters of Mach 2 potential, its designed simplicity lessens the need for complex support equipment and highly skilled maintenance.

Equipped with twin, after-burning engines and dual hydraulic, electrical and fuel systems, the plane can fly even after the loss of an engine or one of its paired subsystems.



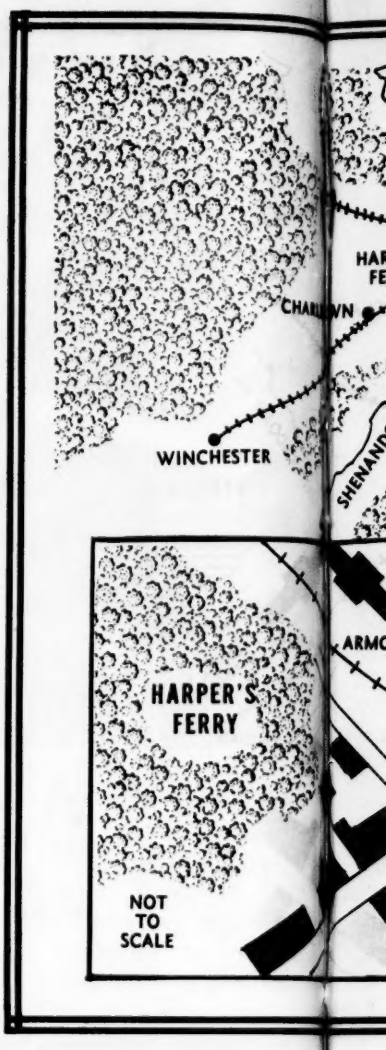
. . . AT ALL TIMES READY

THE MARINES AT HARPER'S FERRY

By Bernard C. Nalty

I must also ask to express . . . my entire commendation of the conduct of the detachment of Marines, who were at all times ready and prompt in the execution of any duty.

BREVET COLONEL ROBERT E. LEE
from his report to the Adjutant
General of the suppression of
John Brown's Raid.



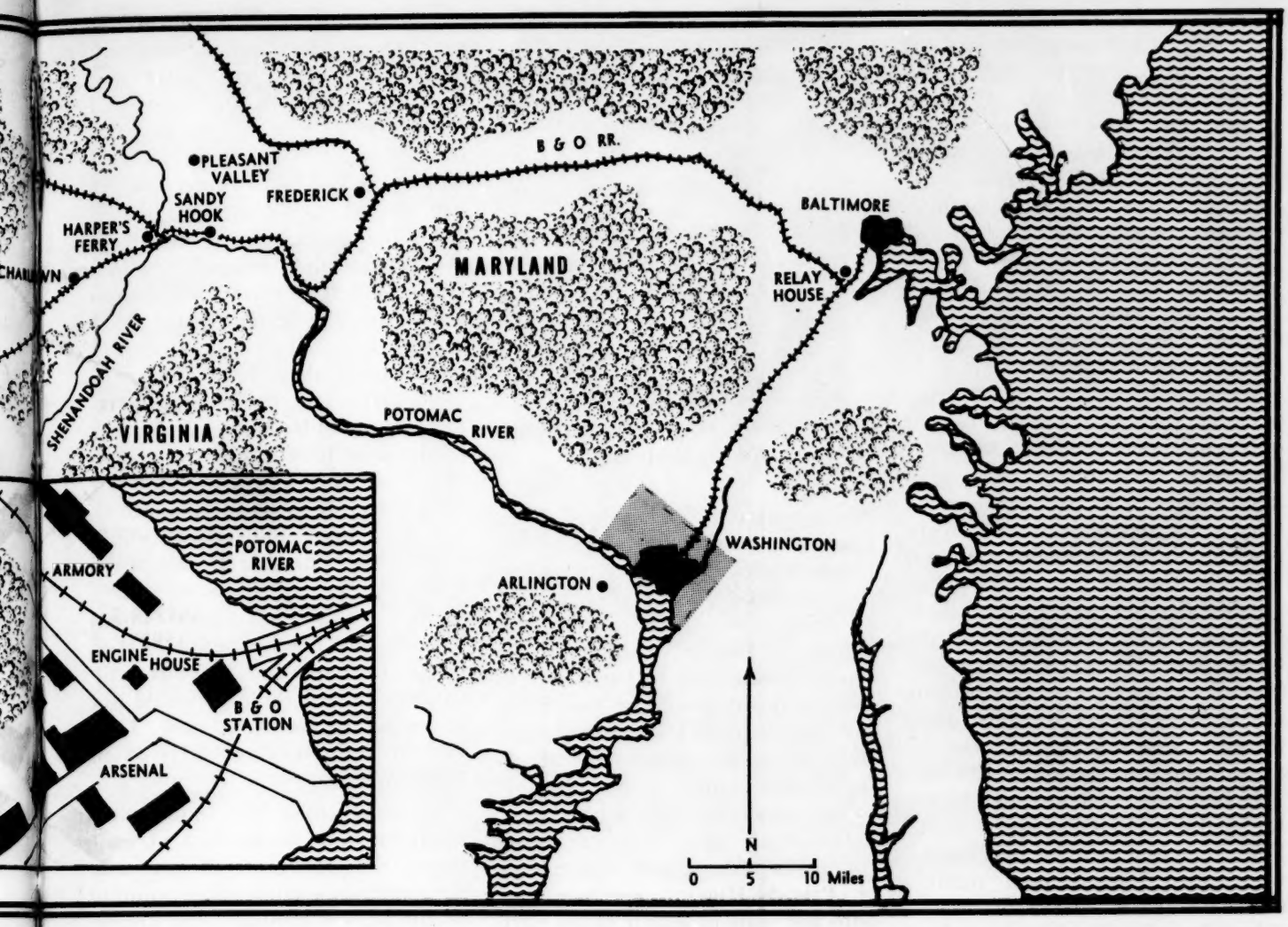
1STLT JAMES EWELL BROWN Stuart, US Cavalry, was enjoying six months' leave from his frontier post at Fort Riley, Kansas Territory. Yet, the joys of coming home to Virginia had not made him forget that he was a cavalryman by profession. On the rainy morning of 17 October 1859 he had ridden over the muddy streets of Washington to the office of the War Department, and now he sat waiting to speak with Secretary of War John B. Floyd. Jeb Stuart had an idea for a new type strap to fasten a cavalryman's sabre to his belt. While the young lieutenant was rehearsing in his mind for the coming interview, the Secretary himself was face to face with the specter of a slave insurrection.

John B. Floyd was a poor administrator, a failing which almost resulted in his removal from office; but on this day there was no need for paper shuffling. Word had come by way of Baltimore that an insurrection had broken out at Harper's Ferry. A band of armed men had captured the US arsenal there and was fomenting a slave rebellion. A native of Virginia, the Secretary must have heard the oft-told tales of the Haitians' revolt against their French masters with all its barbarism. Nor had any son of the Old Dominion forgotten Nat Turner's Rebellion, a slave uprising which occurred a generation before and claimed the lives of 55 whites in a single bloody night.

Swinging at once into action, Floyd fired off a telegram to Fort Monroe; by noon Capt Edward O. C. Ord with 150 coast artillerymen was on his way toward Baltimore on the first leg of the journey to Harper's Ferry. There was no question as to who would command operations against the insurgents. Floyd called for his chief clerk and set him to writing orders summoning to the War Department Brevet Col Robert E. Lee, then on leave at his estate, Arlington, just across the Potomac from the capital.

Message in hand, the harassed aide came dashing out of the office, only to halt when he spied the forgotten cavalry officer. Stuart, by now thoroughly bored, was easily persuaded to deliver the sealed envelope. Even as this message was speeding toward its destination, President James Buchanan called upon Secretary Floyd to move even faster, a demand which was to bring the Marine Corps into the picture.

Since there were no troops nearer the scene of the uprising than those en route from Fort Monroe, Floyd was powerless to comply; but Secretary of the Navy Isaac Toucey quickly offered a solution to his dilemma. About noon Charles W. Welsh, chief clerk of the Navy Department, came riding through the main gate of the Washington Navy Yard. He sought out 1stLt Israel Greene, temporarily in command of Marine Barracks, Washington, and asked how many Leathernecks were available for duty. Greene estimated that he could round up some 90 men from both his barracks and the small



Navy Yard detachment. He then asked Welsh what was wrong. The civilian told him all he knew—that the armory at Harper's Ferry had been seized by a group of abolitionists and that state and federal troops already were on the march.

Mr. Welsh reported back to the Navy Department, and Secretary Toucey at once began drafting an order to John Harris, Colonel Commandant of the Corps. "Send all the available Marines at Head Quarters," he wrote, "under charge of suitable officers, by this evening's train of cars to Harper's Ferry to protect the public property at that place, which is endangered by a riotous outbreak." Once they arrived at their destination, the Leathernecks would be under the command of the senior Army officer present, in this case, Col Lee.

As the senior line officer on duty at the Navy Yard, Israel Greene assumed the burden of organizing the expedition. Maj William W. Russell, Paymaster of the Corps, was detailed to assist him; but Russell, a staff officer, could not exercise command over the force. Colonel Harris felt that the presence of a more mature person—Greene, after all, had only a dozen years' service to his credit—might prevent unnecessary bloodshed. Working with the major, Greene saw to it that each of his 86 men had drawn musket, ball cartridges, and rations. Since no one knew for certain the strength or exact position of the insurgent force, two 3-inch howitzers and a number of shrapnel shells were made ready. At 1530, the Leathernecks clambered aboard a Baltimore and Ohio train and rattled off toward Harper's Ferry.

While Secretary Toucey was busy alerting the Marines, Jeb Stuart had returned from Arlington with Col Lee. Once again the lieutenant waited in the Secretary's anteroom as Floyd outlined the crisis to Lee. There was no need to stress the savage implications of a slave uprising, for the colonel had been stationed at Fort Monroe when Nat Turner had put aside his hoe to take up the sword. He well remembered the terror that followed. He recalled, too, how militia, regulars and Marines from Norfolk had scoured the Virginia countryside before bringing Turner to bay deep in the vastness of Dismal Swamp. After receiving the latest intelligence from western Virginia, Lee was handed orders placing him in over-all command of the effort to suppress the insurrection.

Accompanied by Stuart, Floyd and Lee hurried to the White House where the colonel was given a proclamation of martial law to issue if he should see fit. In addition to the proclamation, Lee acquired an aide. Certain that a fight of some sort was at hand, Stuart volunteered to accompany him to Harper's Ferry, and Lee accepted. Still in civilian clothes, the colonel hurried to the railroad station, but the Marines already had left.

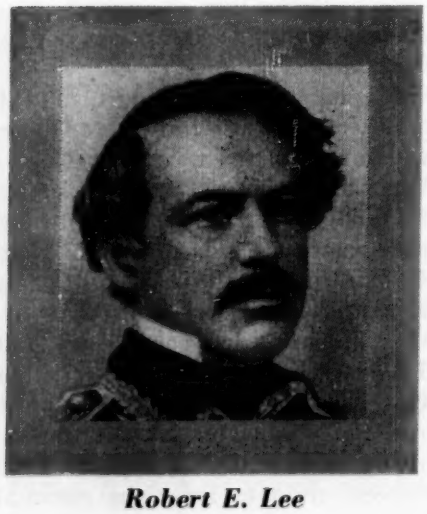
Next train to leave the national

capital was the Baltimore express. At 1700 Lee and Stuart boarded the train in the hope of catching up with the column at Relay House, a station near Baltimore where the troops had to change trains. They were too late, and the expedition rolled off toward its goal without its commanding officer. Lee then wired the stationmaster at Sandy Hook, Maryland, to hold the trainload of Leathernecks until he and his aide arrived. For the time being, all the two officers could do was wait.

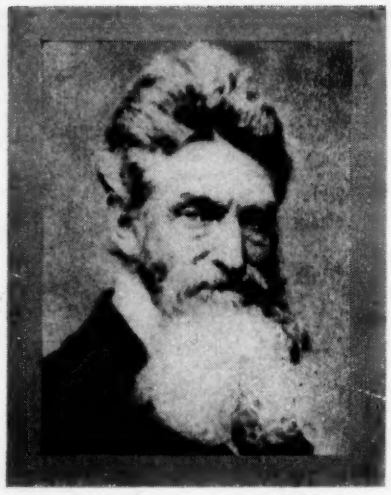
Fortunately they were not delayed for long. John W. Garrett, president of the Baltimore and Ohio Railroad, learned of Lee's plight and ordered a locomotive to Relay House. Aware that a few moments wasted might cost him his job, the engineer opened wide the throttle. At 2200 Lee arrived at Sandy Hook, on the Maryland side of the Potomac across the bridge from Harper's Ferry. Maj Russell and Lt Greene were waiting as the Army officers descended from the cab. Lee now learned the details of the insurrection.

It had happened so quickly. On the night of 16 October, at about 2230, 18 armed men led by a farmer who called himself Isaac Smith—some said he was "Old Osawatomie," John Brown of Kansas—padded across the covered, wooden railroad trestle leading into the town and made a prisoner of one of the bridge tenders. Next the raiders had strolled undetected through the darkness of the gates of the US Armory. They leveled their pistols at a startled watchman and quickly gained access to the buildings.

The leader of the band then sent



Robert E. Lee



"Old Osawatomie"

out patrols to take hostages. Most prominent among the captives was Lewis W. Washington, a colonel on the staff of Governor Henry A. Wise of Virginia and the great-grandnephew of George Washington. His captors forced him to hand over to them a sword given the first President by Frederick the Great of Prussia. During the nightmare that followed, this sword hung at the side of the man called Smith.

While the prisoners were being rounded up, the second bridge tender, Patrick Higgins, wandered out onto the span in search of his partner. In the darkness he collided with two of the raiders who had been posted as guards. A single punch floored one of them, and as the other fired wildly, Higgins sprinted back to town. The angry, red crease etched lightly across his scalp by a rifle bullet was proof enough that Harper's Ferry was under attack.

The raiders next showed their hand when the eastbound night express neared Harper's Ferry. Afraid that the bridge had been weakened, a railroad employee flagged the train to a halt short of the trestle. A party of trainmen walked out onto the span to investigate but were driven back by a volley of rifle fire. Mortally wounded by the self-appointed liberators was Shephard Hayward, a freed slave. Until dawn the raiders held the train at Harper's Ferry. Then the locomotive gingerly eased its cars across the bridge, gathered momentum, and roared off toward Frederick City, Maryland. There it halted while the conductor wired a garbled report of the insurrection to the railroad's main office in Baltimore. This news was relayed to the governors of Maryland and Virginia; militiamen were alerted and sent marching toward the embattled town. Next a telegram was dispatched to the Secretary of War, and now at last Col Lee and the Marines had arrived on the scene.

To the colonel's experienced eye the situation did not appear critical. Harper's Ferry swarmed with militia. Although the state troops were disorganized, ill-trained, some of them drunk, there were enough of them to prevent the raiders' escaping into the hills. Nor was there any point in posting the proclamation of martial law. There were too few federal troops to patrol the streets, and the citizen soldiers who would have to assist them were perhaps the least orderly group in town.

Since the situation was fairly well in hand, Col Lee hurried off a wire informing Capt Ord that his artillerymen turned infantry would not be needed at Harper's Ferry. They were to halt at Fort McHenry in Baltimore.

Learning that the militiamen, whatever their faults, had at least forced the insurgents to barricade themselves in a single small building on the armory grounds—the Engine House—Lee decided to attack as quickly as possible. Because of the danger to the hostages, a night assault was out of the question, so the colonel, his aide, and the Marines crossed the river to await the dawn.

About 2300 on the night of 17 October, Greene led his men across the covered bridge and into the armory yard to relieve the militia posted around the raider bastion. The insurgents had taken refuge in a stone building, about 30 by 35 feet, which housed the armory's fire fighting equipment. Three entrances, each separated from its neighbor by a stone abutment, pierced the front of the structure. Two of these were guarded by heavy, nail studded, double doors, while on their left was an equally strong single door. To assault a band of determined men, frontier guerrillas who had proven themselves to be deadly marksmen, would not be an easy task.

As the Marines moved out, Lee was busy laying his plans. First he drafted a surrender ultimatum addressed to the person in command

US Marines storming John Brown's stronghold at Harper's Ferry

of the insurgents—Lee was not yet certain that Brown was leading the raid—to be delivered by Lt Stuart at the colonel's order. Should the raiders refuse unconditional surrender, there would be no bargaining with them. At a signal from Stuart, the assault party would batter down a door and pounce on the enemy with bayonet and rifle butt. There could be no shooting because of the danger to the hostages.

Selecting men to make the assault posed a touchy problem in federal-state relationships. Since the uprising was directed mainly against the slave states, even though federal property was involved, Lee offered the honor of spearheading the attack to the militia. The officer in charge of Maryland troops, who maintained that his only mission was to protect the townspeople, declined. He could see no reason for sacrificing Maryland lives to avenge an insult to a sister state; besides, Marines were paid for this kind of work. Nor was the Virginia militia colonel eager to erase the stain of insurrection from the honor of the Old Dominion; let the "mercenaries," as he called the Marines, do the job. The veteran Army officer, still clad in civilian clothes, then turned to Israel Greene, splendid in his dress uniform. Would the Marines storm the engine house? Greene whipped off his cap and accepted with thanks.

At about 0630 Greene received his instructions. Twelve men were to form the storming party with an equal number in reserve. In addition, a detail of three men, each of whom had been issued a heavy sledge hammer, was to accompany the assault party and batter down the center doors of the engine house. Twenty-seven Marines, with Greene and Russell at their head, gathered close to the engine house but out of the insurgents' line of fire to await Stuart's signal.

Two thousand pairs of eyes were fixed on Jeb Stuart as he strode, bearing a flag of truce, toward the engine house to deliver Lee's ultimatum. Tensely the throng of spec-

Mr. Nalty is a research historian at Historical Branch, HQMC, and has been a member of the civilian staff there for the past three years. A graduate of Creighton Univ in his hometown of Omaha, Neb., he received an Army commission through the ROTC program and served from 1953-55 as an infantry small arms instructor at Ft. Riley, Kans., and Ft. Leonard Wood, Mo. He later attended Catholic Univ in Washington, D.C., on a Woodrow Wilson fellowship and earned a Master's degree in American History, specializing in post-Civil War politics.

Fort was a stone firehouse measuring 30x35 feet

tators waited for the drama to unfold. Standing on a small rise in front of the makeshift fort was Robert E. Lee, looking every inch an officer in spite of his grimy clothing and tired face. Near him, dressed as though for parade, were the blue-clad Marines.

Now Stuart halted before the building and called for "Mr. Smith." The center doors opened a few inches. There, carbine in hand, stood the lean, fierce figure of old John Brown, the anti-slavery zealot who had caused so much bloodshed on the banks of Osawatomie Creek in Kansas. Stuart recognized him at once.

The lieutenant repeated Lee's demand for immediate surrender, but Brown tried desperately to bargain. From inside the building came the cries of the hostages, pleading that Lee cooperate with their captor. Satisfied that Brown would not listen to reason, Stuart spun aside, pressed his back against the abutment, and waved his hat, that gaudily plumed chapeau which would become his trademark during the Civil War.

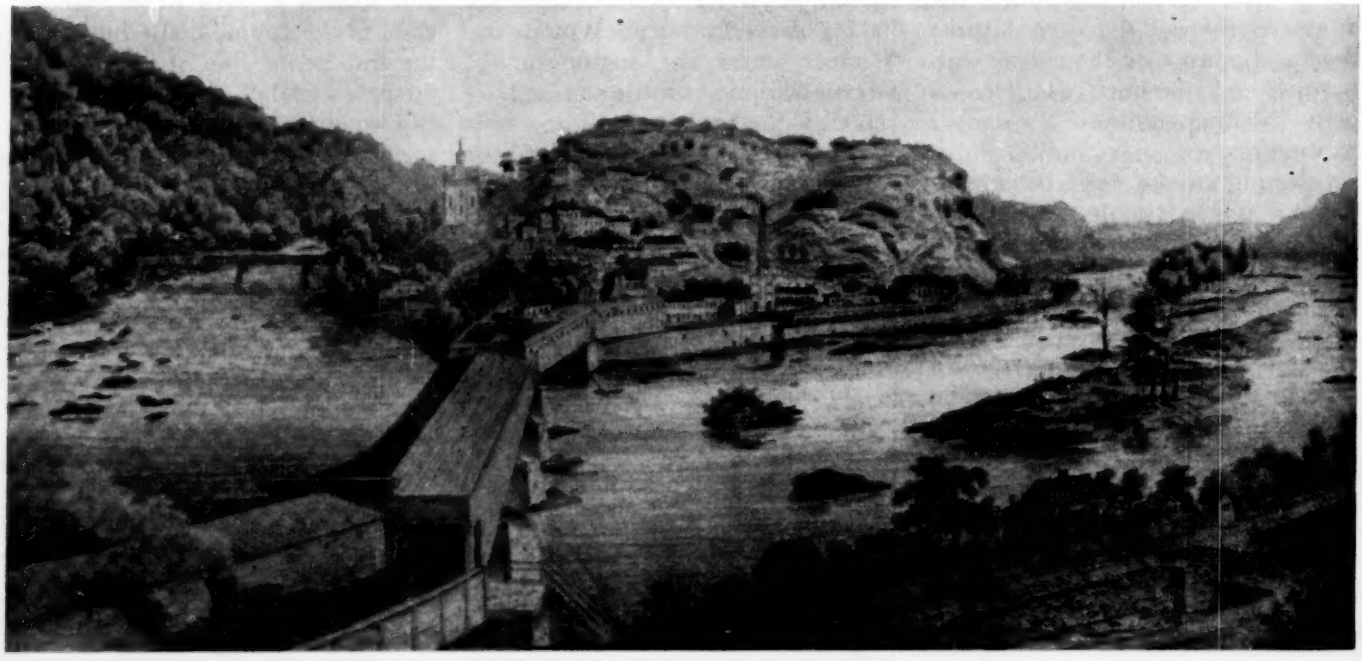
Instantly the Marines sprang to the assault. Three of them flailed away with their sledge hammers; but the center doors, now slammed and bolted, held fast. Inside, Brown removed the historic sword from his belt, placed it reverently upon one of the fire carts, then joined the four raiders yet unwounded in trying to beat back the assault. From within the building came the bold words of Lewis Washington. "Don't mind us," he shouted. "Fire!" Lee recognized the voice. "The old revolutionary blood does tell," was his quiet comment.

Suddenly the thudding hammers stopped. During the charge, Greene had seen a ladder lying near the engine house. Now he ordered his men to snatch it up to use as a battering ram. Its second blow splintered the door, and the Leathernecks came spilling into the building just as Brown was reloading his weapon.

Armed only with his light dress sword, Greene jumped from the cover of the abutment and bounded through the opening. Behind him came Maj Russell, weaponless but brandishing a rattan switch. The darkened interior rocked to the echoing shots. The third Marine to scramble through the shattered door, Pvt Luke Quinn, took a fatal bullet in his abdomen. The fourth man, Pvt Mathew Ruppert, was slightly wounded in the face; but these casualties could not stem the blue-clad tide.

The first figure to rise from the gloom as Greene rushed forward was that of Lewis Washington, an old friend. The Virginia aristocrat strode up to the officer, warmly took his

Harper's Ferry at the time of John Brown's raid—October 1859



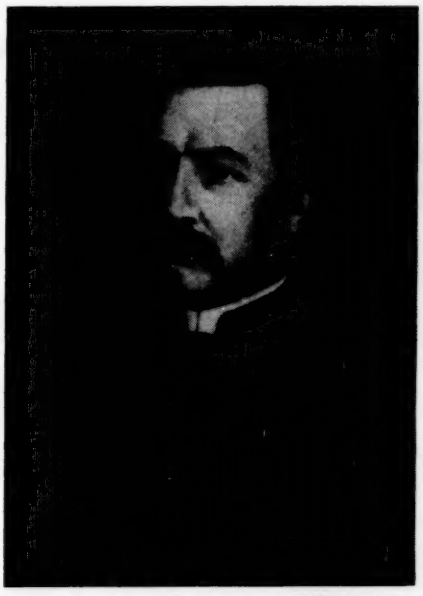
left hand, then, pointing to a bearded man fumbling with a carbine, said, "This is Osawatomie." With all his strength Greene slashed at Brown with his sword. The first blow left a deep cut across the back of his neck; but the frail blade bent double on Brown's ammunition belt when Greene thrust at his heart, and John Brown was spared for the hangman.

In a moment the engine house was filled with wildly charging Marines. A sniper posted under one of the engines was bayoneted to death; sharpened steel pinned a second raider to the wall. Greene then called a halt to the onslaught as the two unwounded raiders surrendered.

Three minutes of fierce action had ended a 32-hour reign of terror. None of the hostages was harmed, but the Marines suffered two men wounded, one of them fatally. Brown, his wounded and semi-conscious son, and four able-bodied riflemen had defended the engine house. Of these, two were killed, Brown himself was wounded, and the others taken prisoner.

All that remained was to deliver the prisoners to the jail at Charlestown, a journey which proved uneventful. Upon their return to Harper's Ferry, rumors of a new uprising, this one at the village of Pleasant Valley, Maryland, greeted the Marines. Lee, Stuart, Greene, and 25 men marched the five miles to this sleepy hamlet on the night of 19 October, but, as the Colonel expected, all was calm.

The slave uprising had not materialized. The pikes with which



1stLt Israel Greene, USMC

John Brown had hoped to arm the rebels were never issued. Yet, the raid on Harper's Ferry, this ill-planned, poorly executed attempt to free men in bondage, hastened "the inevitable conflict."

In this conflict the four officers who took part in Brown's capture were to find themselves sorely tried in spirit and body. Only Maj Russell was to remain with the Union, dying in office as Paymaster of the Marine Corps in October 1862. The exploits of Lee and Stuart are too well known to recount. Israel Greene, literally the Sword of the Union at Harper's Ferry, also joined the Confederate cause.

A New Yorker by birth, a Wisconsinite by rearing, a Virginian by marriage, and a Marine by profession, Greene's services were much sought after when the time came to choose up sides in 1861. Declining appointment both as a lieutenant colonel in the Virginia infantry and as colonel in the Wisconsin militia, Greene accepted a captaincy in the fledgling Confederate States Marine Corps. As a major and Adjutant and Inspector of the Corps he served throughout the war at Confederate Marine headquarters in Richmond until his capture and parole at Farmville, Virginia, in April 1865. Returning to the West, Greene settled in Mitchell, South Dakota, where he died in 1909, 50 years after his moment in the glaring spotlight of history at Harper's Ferry—a visible symbol of the great struggle that tore the nation asunder and put it back together again. USMC

★ ★ ★ ★

Recommend Leniency

WHEN I WAS STATIONED IN JAPAN a couple of years back, we had a fellow in our outfit who was a constant trouble-maker. After reprimanding him dozens of times and giving him company punishment, the CO court-martialed the man for his latest offense. Before the court-martial papers were made out, the CO sent the man to the dispensary for a psychiatric evaluation.

The following day the CO received the report and I heard him blow his stack.

I rushed into his office to see what had happened. He pointed to a portion of the psychiatrist's evaluation of the man (although the man concerned was a chronic liar, his latest antics topped everything: he had even bluffed the psychiatrist!) which read:

". . . there is nothing abnormal about this man, except that he finds it difficult to adjust himself to garrison duty after two years in Korea. He has told me all about his fine war record, and because of this, I recommend leniency at the court-martial. . . ."

I knew, as the CO knew: the man had never been in Korea!

Joseph Anthony

Dinghao

THIS TALE ran the gauntlet of the BOQs and NCO messes during the Tsingtao era.

Long and feverish planning and preparation found the troops of the WesPac Force broken out nigh onto 0400 in anticipation of the long-awaited inspection of the General Commanding.

As generals are wont to do, the prevailing "question of the day" was inextricably involved with the length of the individual's tour of duty in China.

"And how long have you been here?" beamed the general at the proud displayer of a laid out field transport pack.

"Six d—— hours, sir!' was the harassed reply.

Capt J. A. Schimmenti

PRESTIGE AND YOUR OFFICE

By AMSgt M. L. Taylor

HAVE YOU EVER WALKED INTO AN office in the Marine Corps where mass confusion reigned? Has your reception at a new duty station been by a "skivvie-shirted" duty NCO playing cards, or a group gathered around a coffee mess? Have you ever been told to come back later merely because no one seemed to know what to do in that particular case? Have you ever called an office on the phone and been greeted by "hello"—no other identification at all?

If you answer "yes" to any of these questions, then I think you'll agree that there is a pressing need for better offices to add to the prestige of the Marine Corps, the unit, and the Marines who man them.

This is not about the "A" Co office, Casual Co office, or "the one down the street." This is about *your* office; all offices where Marines are on duty.

We are expected to—and should—be efficient. No organization can be better than the people who make it function. We're apt to become too lax in this phase of our prestige. As a result, we may impress all who pass through—unfavorably. Recruiters, for example, emphasize a good office because they constantly contact people in all walks of life. They try to "sell" the Marine Corps to most of them. Why should we let it stop here? Why not carry this to all offices, large and small?

One of the biggest steps and possibly the most difficult, is to initiate and to maintain *respect for rank* in our offices.

Remarks such as, "Hey, Joe, check this man in!" should cease permanently.

Why not: "Cpl Jones, would you assist Sgt Smith? He's reporting aboard for duty."

Sound foolish? I think not. This is no more than common courtesy. It belongs in every office. First names are fine on the golf course or after hours. They have no place in an office.

This is not a one-day or one-week project. It's an ever-present challenge beginning with the commanding officer and continuing throughout the office. Once respect for rank is established, it's contagious. It leaves a real impression. We remember even a slight courtesy by the office staff.

I don't contend that the First Sergeant or Sergeant Major must stay in the office just in case an equal rank reports aboard. Still, the new Staff NCO should be greeted by at least a fellow Staff NCO or a junior officer. This is a small part of courtesy but an important one.

After the first step is taken, let's consider the *lack of knowledge* on the part of key men. The Marine Corps spends thousands of dollars each year on all sorts of directives. These mean nothing until, or unless, they are absorbed and disseminated. The way to keep informed is simple—research and study until you know for sure your own phase of the big picture. Take your job seriously and you not only increase your knowledge, you help your unit and the Marine Corps in general.

Partial knowledge of administrative or official procedure is not enough. Really *know* established policy. There is already too much

self-interpretation, leading to error.

It's just as easy to have that cup of coffee while perusing the PRAM, auditing a SRB or absorbing the latest change in the Manual as it is to have it while listening to a "sea story." We not only should be concerned with our own phase of the big picture. We should also have a working knowledge of the big picture itself. Keeping well-informed helps our position, helps our career, and insures respect by others.

Third, *let's take the extracurricular out of the office.* The recreation room is an excellent place to play cards; the library is unbeatable for reading or studying. All units have recreational facilities outside the office. Let's put the proper thing in the proper place. No one in the Marine Corps suffers from lack of time off. Few cases of exhaustion result from overwork. Let "putting first things first" begin here. Once again, it's the responsibility of each member of the staff—not the First Sergeant or the Commanding Officer alone but *all hands.*

There is also the item of *Telephone Etiquette.* This is a simple statement for one to repeat: "Headquarters Co, 1st ITR, Cpl Jones speaking, sir." How many times is it crucified daily in offices throughout the Marine Corps? Slang expressions belong with teen-agers at home—I fear—but surely not in our chosen field of endeavor. Let's forget them when on duty. I can even condone personal calls during working hours, but let's keep them on an adult level.

We can't treat this phase of office procedure lightly—nothing can be more annoying than a loud, unnecessary telephone conversation during working hours. They are impossible to conceal and are thoroughly distracting. Once this "etiquette" is rigidly enforced it is comparatively simple to maintain.

Military bearing has always been one of the outstanding features (and better selling points) of the Marine Corps. This does not mean that because one works in an office he should only get a haircut, shine his shoes or press his uniform in anticipation of an impending inspection. A neat, well-groomed member of the office staff usually means an efficient one. This is because his personal appearance reflects his ability. This is the basic responsibility of the individual but affects everyone, particularly the Staff NCOs. Don't hesitate to call down sloppiness. This is part of your job. Set the example yourself, maintain it, and then enforce it throughout the office. Remember—*someone* inspects you every day.

The First Sergeant and Sergeant Major today have many tasks outside the office. They must depend on the senior NCOs to maintain high standards of efficient office management.

The principles of effective office management do not stop with the battalion office or the company office. They include the duty NCO, the Sgt of the Guard, and so on. These are official duties assigned for the express purpose of keeping the unit running after hours. They reflect the efficiency of that unit. Too often these jobs are viewed with distaste. In reality, they call for dignity and pride matching their importance. The sooner we impress this on all hands, the better.

The ideal situation we dream of calls for highly intelligent, conscientious, representative-type career Marines in every office. These are mighty scarce. Accordingly, we must continually educate and indoctrinate the Marines we have. We must recognize their capabilities. Too often the impression is that office personnel are frustrated foot soldiers with falling arches. Really, most office Marines have a high potential, both as administrators and as Marines. The sooner we give credit where credit is due, the nearer we are to finding the so-called ideal office.

In solving some of these problems, the formula begins with *responsibility.* Responsibility is said to be: 1) a burden or obligation, 2) initiative or authority. We speak and read of more authority for juniors—what better place to start than where all hands can see it work?

It's surprising what a man can—and will—do when he knows someone depends upon his ability. A baseball pitcher may slack off if he sees a relief pitcher warming up in the bullpen; this indicates a lack of confidence in his ability.

The same applies to office personnel. If a clerk knows his work will be re-done by the First Sergeant or Commanding Officer, he'll do it as hurriedly as possible. The end result will reflect this haste. His talent is then lost to your team.

Assign responsibility according to rank and potential; but assign some responsibility to *every member.* No one is indispensable, but every member should feel he really contributes, and that he is an integral part of the team.

We now have proficiency pay to reward personnel who show initiative. It is another incentive. Up to now, Marines could not be paid extra for a job well done. Now, competition could become keen for "outstanding effectiveness." Let's use every method to get top performance.

So the task, gaining prestige through better office management—and it is a task—is the responsibility of each member of the office staff. It cannot be delegated to subordinates, nor can it be borne alone by the Commanding Officer, First Sergeant, or any one individual. It is something that cannot begin at office hours Monday, nor be put into effect the next fiscal year. It must begin now—in your office. It must be maintained at all levels. It must be as spontaneous as morning colors. IT'S UP TO YOU. USMC

AMSgt Taylor is an instructor in the Sergeant Major Course at Parris Island's Personnel Administration School. Since his enlistment in the Marine Corps in 1941 he has seen service as a drill instructor, recruiter and 1stSgt aboard the USS NEW JERSEY and the USS NORTHAMPTON. His reason for writing this article: "To show office personnel they are essential, and to remind all Marines that they are primarily Marines, then specialists."

A MILITARY REPORT FROM SPAIN

By Robert B. Asprey

Author's Note: ***One of the best bilateral arrangements ever made by the United States was formalized in a Defense Agreement signed by America and Spain in late 1953. Under this agreement, which gave us air and naval bases in return for economic and military aid, we first of all gained the immediate strength of Spain's strategic location. During the past five years the construction of SAC bases on the Peninsula has added a new and powerful air channel and has plugged the former land gap of our Mediterranean-Atlantic bombardment complex. Simultaneously, the construction of naval bases on three sides of Spain has insured logistic support both of the new air bases and of whatever US fleet units are operating in surrounding waters.***

Unfortunately, during these same five years we have not similarly exploited our second gain, the addition of Spanish military strength to the West. If this is not such a simple matter as construction of bases, it nevertheless is just as important. Today there are two outstanding needs for a modern Spanish military force. The first is a need for a significant Spanish contribution to allied ground forces in Europe, a major necessity in view of French commitments in Algeria, British reduction in her own ground forces, and the increasing demand for global distribution of American strength. The second is a war emergency need. Spain would become a bastion of western Mediterranean defense. In view of such tasks, it is difficult to understand our own lack of enthusiasm, especially where the potential is so very real.

ALTHOUGH MAINTAINING A SMALL air force and navy, Spain traditionally has made her army the strongest force. The nucleus of her present army won the Civil War for the Nationalists. (In 1936 the bulk of the air force and navy remained loyal to the Government.) The same army has remained loyal through the economic and political vicissitudes of the last decade. Top Spanish strategists view the successful defense of Spain as a land, and therefore primarily army, matter—the 1957 budget gave the army 60 per cent or 194 million dollars of military funds.

The exact size of the army, according to its minister, LtGen Barroso, who recently visited America, runs at a minimum of 200,000 men. Some ranking Spanish officers have told me that its standing strength is 250,000, and many foreign observers place the figure closer to 300,000. The regular army is backed directly by a Civil Guard, a separate, elite force under army command that is believed to number 50,000, and indirectly by a police force officially stated to be 25,000, a figure undoubtedly too low. In event of mobilization, an organized reserve could bring a total strength of 1,500,000 or 44 divisions formed in 36 hours. In a real crisis, however, about four million males could be called up from a total population of under thirty million!

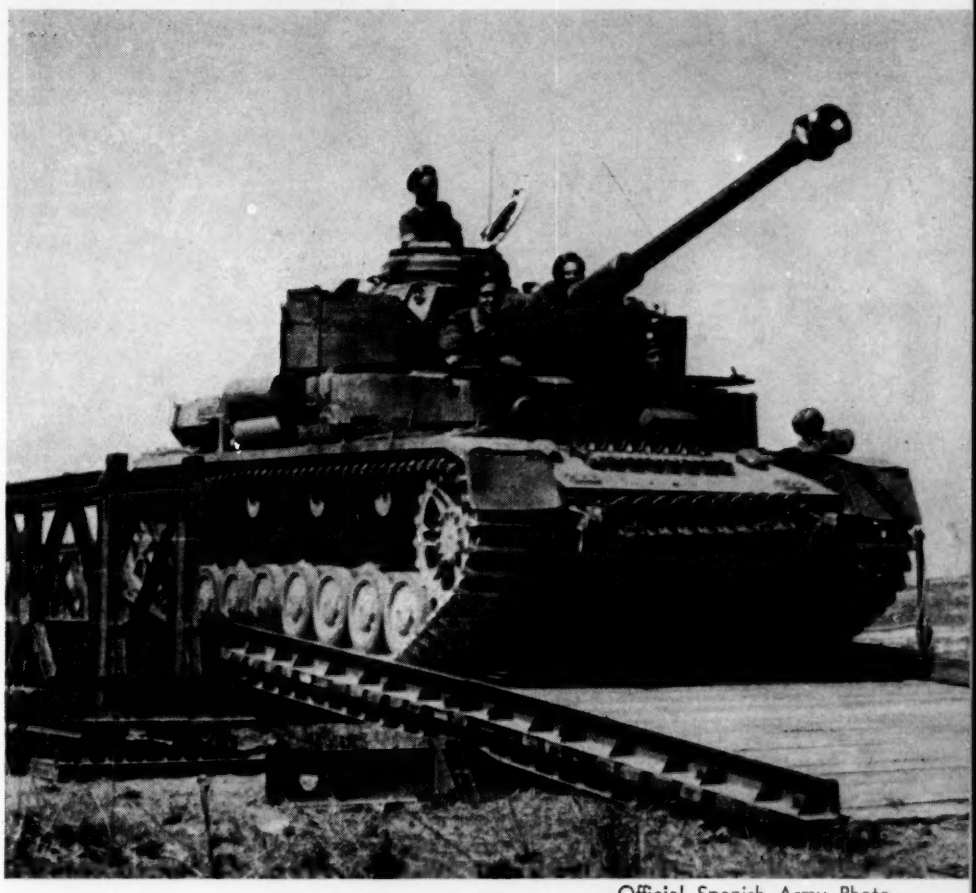
As Caudillo of Spain, Gen Franco is Commander-in-Chief of the Armed Forces, each branch of which is represented by a distinct ministry whose representatives sit in Franco's main military coordinating body, the High General Staff. The Minister of the Army is LtGen Barroso; the tactical guts of the army are found in a General Staff whose chief is LtGen Alcubilla. The army is administered through nine military areas with each Area Headquarters except two controlling an army corps of at least two infantry divisions plus supporting units. Central Army Headquarters in Madrid also commands an independent airborne regiment, one armored division and one cavalry division (with regiments of the two latter units farmed out to area commands). Separate Balearic and Canary Island commands each hold about one division, and another 35,000 troops are stationed in Morocco. Altogether the mainland army numbers about 16 infantry divisions with perhaps half of them at full strength of 13-14,000. Her best units are the special Mountain Divisions, four in number, which are assigned to the defense of the Pyrenees.

The army is as rich in manpower as she is poor in materiel. Until very recently Spanish arms and equipment were entirely obsolete, a hodge-podge of German and Italian gear furnished the Nationalists during the Civil War plus some Rus-

sian equipment captured from the defeated Republican army. The 1953 Defense Pact allotted an initial 350 million dollars in direct military aid. To date our Military Advisory Group has spent about three-fourths of direct military aid funds, but nearly 40 per cent has gone to the Spanish air force and 30 per cent to the navy. (The goal for the air force, the provision of jet fighter squadrons for city-industrial defense and for tactical support of the army and navy, is nearly realized; the goal for the navy is modernization of communications and fire-control on existing craft with addition of some new units like the two destroyers gained from America.) Army aid has so far sent about a hundred officers to America for specialist training while hundreds of other officers and non-commissioned officers have attended shorter tactical courses with US Forces in Germany. Several American instruction teams are currently working throughout Spain. With the bulk of its troops still equipped with the five-round clip, bolt action Mauser rifle, obsolete automatic rifles and mortars, and supported by horse drawn artillery and the cavalry still riding horses, the Spanish army has a long way to go before it can be called modern.

The major reason for this deficiency is not lack of ability but a lack of money, a poverty that pervades every aspect of modern Spanish existence. If Spain owned or could afford to buy raw materials, she could easily manufacture most of her weapons. What is produced can be excellent. A rocket launcher that I saw compares with the best of our production. NATO off-shore procurement contracts have recently been granted to Spain for the manufacture of 105mm howitzers and 81 and 120mm heavy mortars. Her new rifle, the Cetme, is one of the most beautiful pieces I have ever fired and, indeed, has been selected along with the Belgian FN as the basic arm of the new German army! And yet, a fact which underscores her financial predicament: she can not afford to equip her own troops with this weapon.

The same poverty adversely affects the personnel factor. The private soldier, and there are many, makes

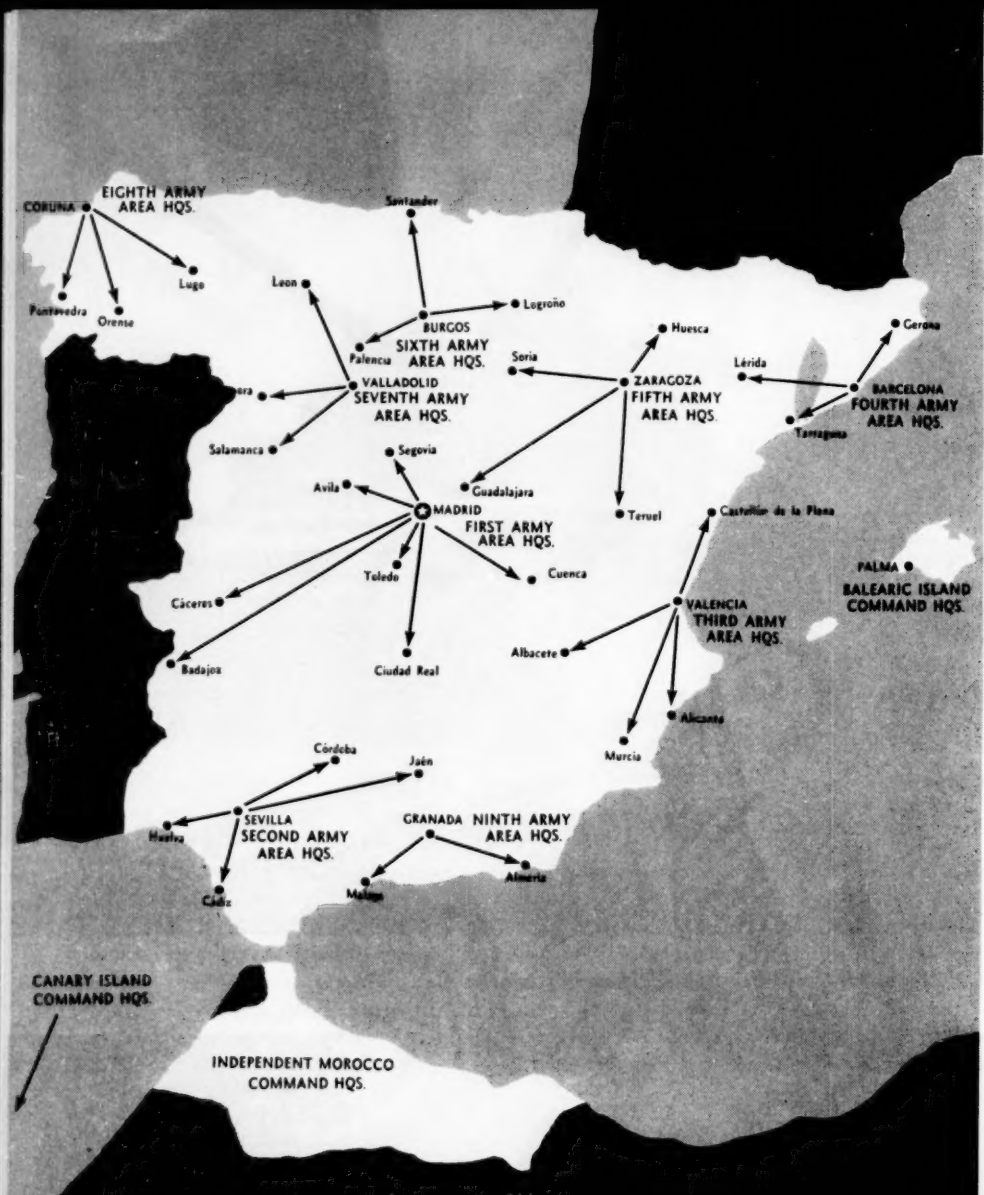


Official Spanish Army Photo

Spanish tankmen

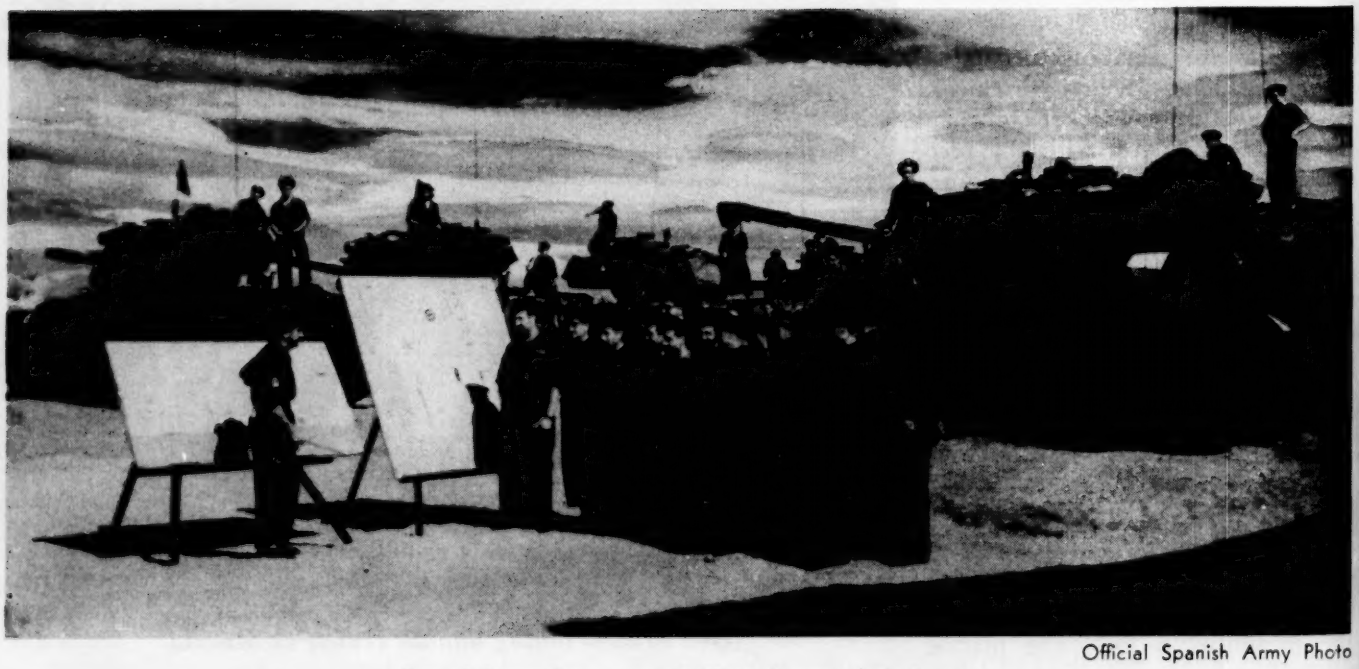
Official Spanish Army Photo

Gen Franco taking annual review in Madrid



only a few cents a day; a senior non-commissioned officer is paid $45 a month, a senior captain about $80. The first two figures do not exactly attract recruits nor do they lend themselves to the argument for an enlisted career program. The effect on officers is worse: whereas the bulk of them once enjoyed private incomes and embraced the army as a gentleman's career, today most have no private means. As one result army units generally close down at two each afternoon with some officers going to another job in order to make ends meet. And because of a small retirement pension coupled with limited opportunity for profitable civilian employment, the average officer hangs tenaciously to active duty. This means that senior ranks continue to be filled by older officers thus holding back the promotion of younger, well-qualified officers.

Partially off-setting these dissident morale factors is the unique position of the army in the state. Politically, it is not easy to explain. Contrary to general opinion, its officers do not have to belong to Spain's political party, the *Falange*. While not a political unit, *per se*, the Spanish army is an instrument of political unity and order just as the Roman Catholic Church is the spiritual instrument of this concept. Although Franco demands and apparently receives the complete loyalty of his officer corps, the Spaniard



Official Spanish Army Photo

Spanish tankmen attending desert briefing

pledges himself to "God and Spain." And over the entrance to military garrisons are forever the words "Todo por la Patria"—"Everything for the Country."

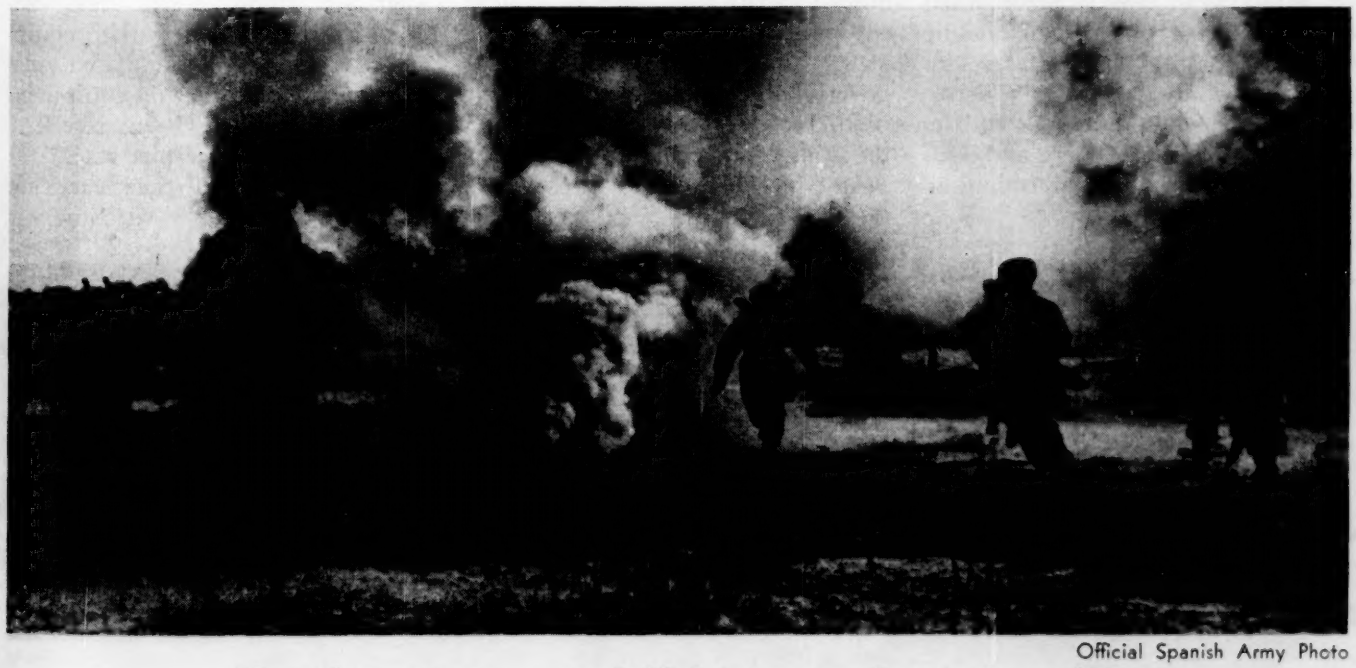
It is the *Spanish* tradition that makes the army an integral part of general Spain and thus gives it an invisible but still very real strength. A land military history extends to the 11th Century B.C. when the Phoenicians reached and settled on the Iberian Peninsula. The Peninsula in turn fought Hannibal, was conquered and was used as a military base for the Carthaginian invasion of Rome. Both Arabian and Roman historians praise the Spanish soldier. Caesar, himself, respectfully described Spanish ability in deception and ambush. The modern army tradition was created when Ferdinand and Isabella united the Castile and Aragon crowns to end the Moorish wars of eight centuries. Their army soon produced great captains and the finest infantry in Europe—at the height of its power it won an empire larger than the greatest Roman Empire. Spanish might fell in 1643 when the trusted infantry squares were smashed by new French artillery at the Battle of Rocroi. Although poorly led, Spanish soldiers (and many civilians) continued to fight vigorously in the Napoleonic wars, an effort that caused Bonaparte to complain feelingly about "the Spanish ulcer."

Official Spanish Army Photo

". . . rich in manpower . . . poor in material"

Subsequently the Moroccan wars, the early internal wars of this century, the tragic Civil War of 1936-1939 and finally the record of the Blue Division during WWII stand as witnesses to the fighting fury of the Spaniard when he is aroused.

Military tradition couples with immediate environment to make the Spaniard a good soldier today. An admixture of Western, Moorish and Arabian blood can lend him a fanaticism that has resulted in numerous last-man stands in defeat, and in a victorious behavior best suggested by the phrase *furia española*. The poverty of his army life comes as nothing new to him. So long as his wineskin is full of common red *vino*, he seems to thrive on a fare of which the most generous items would cause an American to write his congressman. His military appearance can be excellent: the paratroop regiment in this sense can hold its own anywhere in the world as can the troops marching in the annual victory parade and the honor guards at high-level headquarters. More often than not his appearance is terrible, but this may be because the average garrison duty is tantamount to service under field conditions. Too, his spirit compensates for or is perhaps in keeping with his appearance. Highly individualistic, he nonetheless responds well to intelligent discipline; he is voluble



Official Spanish Army Photo

"Spanish paratroops . . . can hold their own anywhere in the world."

Official Spanish Army Photo

Spanish Air Ministry in Madrid

and volatile, and his common action carries with it an innate dramatic flair that explains the brilliance of his dance, the *flamenco,* or his bullfight, the *corrida.* Owning these traits himself, the good Spanish officer respects them in his troops. He is stern but fair and one frequently hears an officer say *gracias* to an enlisted subordinate. Above all else the Spanish soldier holds two qualities often lacking in modern professional armies: he is a proud man and he will fight for that which makes him proud.

Like other mountainous countries such as Yugoslavia, Greece and Turkey where poor internal communications are the rule, Spain places heavy emphasis on small unit training. The mountain rifleman is all important. He is trained to be independent and resourceful and he operates for long periods with a few of his fellows under the command of a sergeant who is generally a combat veteran. According to American military personnel who have served with these troops, they are very quick to adapt themselves to modern equipment. Although slow mechanically, the average soldier knows poverty and thus understands the need for preventive maintenance: the considerable amounts of equipment which I inspected—weapons of all sorts, armor, vehicles—were generally well looked after. I also was impressed by the standard of tank driving achieved by a class in one month of instruction and by the performance of my own Jeep driver, a young Basque who had learned to drive three weeks earlier.

Unlike many small countries where effective tactical command stops at battalion or even company level, Spain possesses a well-trained General Staff Corps whose officers obviously have the ability to tie small unit operations into an overall effort. Most of these officers have experienced combat either in the Civil War or with the Blue Division in WWII, but they of course lack prolonged experience in the command and staff demands of today's warfare, particularly where air and armor are concerned.

Because army maneuvers are restricted by lack of money, it is not easy to judge performance, particularly at division level or higher. I did witness an airborne company assault problem against a defended position in very rough terrain and was favorably impressed both by the tactics employed and the aggressive spirit displayed. Western observers made similar observations on the 1957 maneuvers which took place in the rugged northeast Lerida country. A week's maneuver, it employed a division whose mission was to spot and destroy an enemy's penetration of the Pyrenees in division strength. Aggressor troops were used. Although firing of new US equipment was perforce simulated, maneuver and drill of this equipment were said to have been excellent, over-all performance first rate.

The choice of a Pyrenees area for

Tanks maneuvering in Pyrenees area

Official Spanish Army Photo

Official Spanish Army Photo

Spanish Cetme

Official Spanish Army Photo

Spanish-built rocket launcher

the maneuver was no accident. Spain's primary vulnerability to land attack lies at either end of the formidable Pyrenees mountain line. Spanish strategists believe that any penetration by direct frontal attack either through the Biarritz-San Sebastian sector in the west or the Perpignan-Figueras sector in the east could be stopped, but it is readily admitted that Russia would be foolish to launch only direct frontal attacks in these areas. If Russia is going to attack Spain, she will probably wait at the Pyrenees until she is strong enough to strike either end with combined frontal-amphibious vertical envelopment tactics while simultaneously launching a joint amphibious-airborne attack on the eastern coast between Valencia and Barcelona, possibly accompanied by landings in the Gulf of Cadiz followed by an advance up the Guadalquivir Valley in the south (Gen Franco's invasion route in 1936). This situation, and particularly the Pyrenees side of it, has been the subject of Spain's military planners for many years. As is obvious to anyone who has talked to some of these officers, extensive plans of defense exist and are constantly revised. Over-all northern defense exists in considerable depth with at least another six divisions involved. Mobilization would mean immediate reinforcement in this area, an effort that now would be greatly facilitated by improved interior lines of communication such as the new highway from Madrid to San Sebastian via the strategical heart of northern Spain: Burgos.

In its present state of readiness, the Spanish army probably could not hold a Russian attack in strength against the Pyrenees for very long. Although this is unfortunate it is not catastrophic. In the first place, Spain is increasingly gaining the respect of the West and a number of nations are currently trying to get her admitted to NATO, although some members still oppose Spanish participation. Whether this will be effected in 1959 remains to be seen, but in the interim, American funds exist to provide a continuance of direct military aid. The Spanish estimate of Russian amphibious capability is perhaps overly generous, particularly in this instance which would necessitate nearly perfect assault coordination. The threat of a southern invasion would be delayed if only by the space factor. The terrain of Morocco is rugged and is said to be well-defended. Although interior lines of communication in southern Spain would not in their present condition permit rapid transfer of troops, still the under-belly of Spain is defended in local strength and any assault against it would face the flanking threat of the Portuguese army whose eight standing divisions are conconsidered excellent by Western observers.

That Russia is fully aware of these difficulties is suggested by her concern with the improvements effected in Spain's military (and economic) power. Having tried everything in the book to maintain Spain's isolated position, vis-à-vis the West, she has seen the developments of each year raise another of her falsely drawn curtains. Her potential fury alone presents the best argument for the Defense Pact to date. The fear that her fury illuminates should not be overlooked by those responsible for the future policy of Spain and the West. USMC

★ ★ ★ ★

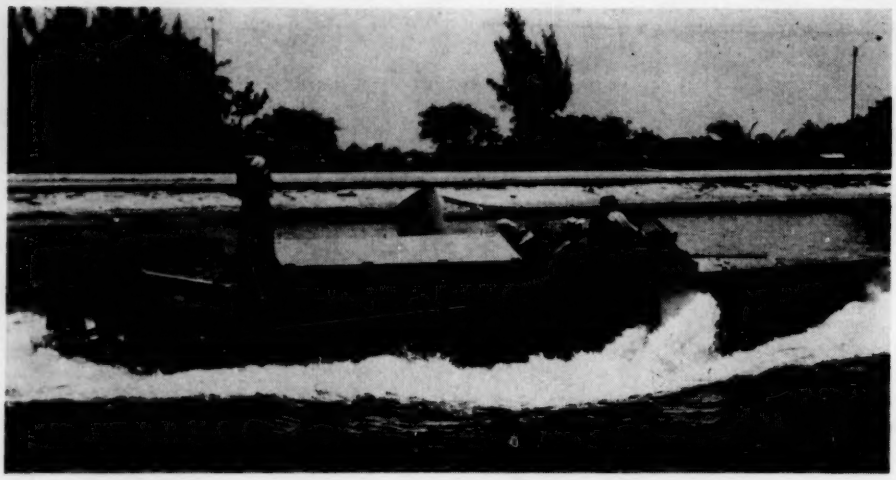
How To Win Friends

WHILE STATIONED at a leading Marine Corps base I stood a duty watch which required that I post and inspect a "Movie Watch Stander." The function of this man was to reject those persons in civilian clothing who were not properly attired. Blue jeans, T-shirts, etc. were specifically outlawed by regulations.

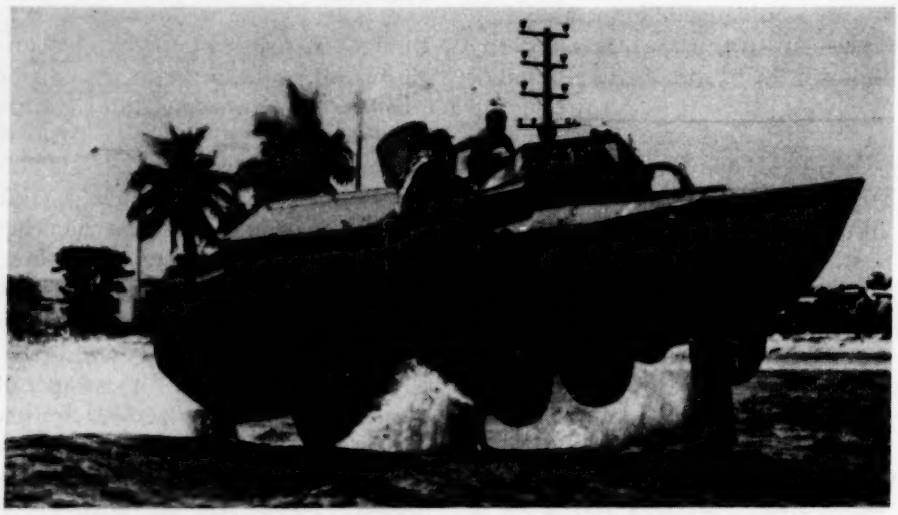
While inspecting the "Movie Watch Stander" the Provost Marshal dropped by. The colonel asked about infractions of the civilian clothing regulations. I informed him that enforcement of the regulations had apparently reduced the number of violations. I added with all the required dignity of demeanor, however, I felt that the regulations should apply to the teen-age sons of officers and noncoms. While the colonel was digesting my remarks, a teen-age youngster dressed in blue jeans and T-shirt skittered through the crowd. "There," I pointed out, "is an example of what I'm talking about." There was a look of astonishment on the colonel's face and a marked hesitancy in his voice as he replied, "T-T-T-Th-a-t-t's my-y son!!!!!"

Capt R. W. Crook

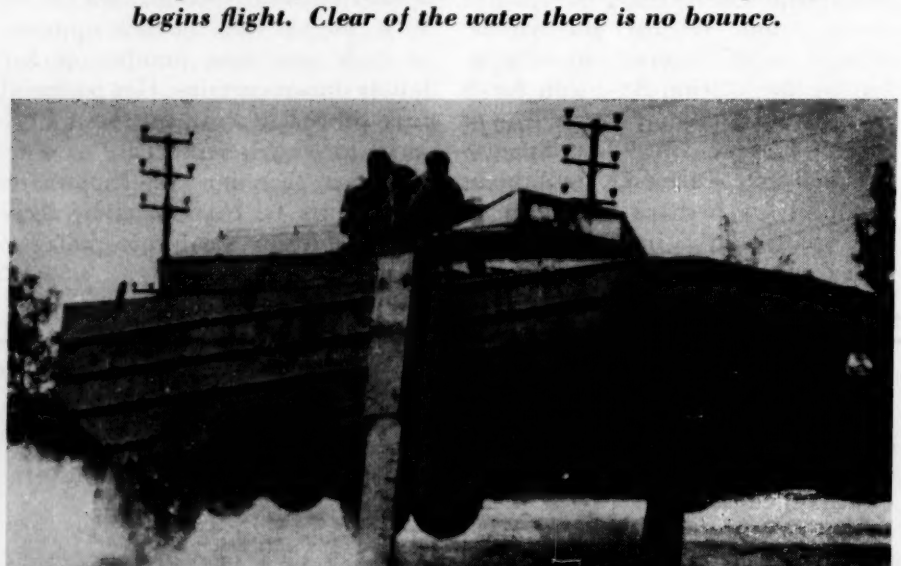
FLYING DUCK!



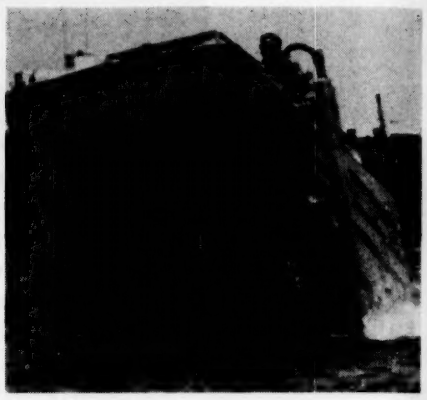
At speeds less than five miles per hour the Flying Duck performs much the same as a conventional outboard.



At 13mph wheels leave water and the 13-ton amphibian begins flight. Clear of the water there is no bounce.



Travelling four feet above the water the converted DUKW is now in full flight. A speed of 50mph is possible.



HYDROFOIL WINGS AND AN ENGINE which normally powers helicopters and airplanes have given the WWII DUKW water speeds up to 50mph.

The Marine Corps Landing Force Development Center has been working for several years on an LVT to travel at equivalent speeds. It will use either the hydrofoil principle or another.

Avco's Lycoming Division, co-developers of the Flying Duck along with Miami Shipbuilding Corporation, has been active for many years in amphibious vehicle and hydrofoil development. Their 860hp gas turbine engine powers the DUKW shown.

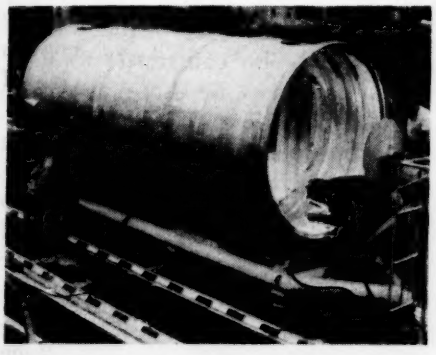
The hydrofoil principle is not new. Experiments with this type wing have been going on for 50 years. Hundreds of small racing boats use hydrofoils but these were impractical for military use. BuShips has tested several military models, one of which was demonstrated at Quantico in 1953.

Lycoming also provided a T53 gas turbine engine to convert an LCVP to hydrofoil configuration. Called the Halobates, it was designed to test advanced hydrofoil designs. It flew for the first time early this year at a speed greater than 35mph.

The Miami Shipbuilding Corporation completed feasibility tests in 1957 on a HATV (Hydrofoil Amphibious Tracked Vehicle or "Flying" LVT) for the Marine Corps. This vehicle is now in the design and prototype stage. USMC

The GV-1, the Marine Corps' flying tanker version of the C-130B Hercules, will enter flight testing this month, keeping on schedule for expected delivery next spring.

A 3,600-gallon fuel tank (shown here) can be removed from the cargo compartment, enabling the aircraft to be used for cargo or troop missions.



Equipped with the huge aluminum tank and wing pods, the GV-1 will be used to refuel jet fighters in flight. As a logistic transport, it will fly a 36,700-pound payload over a range of 2,450 miles, or with 22,700 pounds a distance of 4,000 miles. As a combat transport, carrying 92 equipped troops—or as an ambulance carrying 74 patients plus two attendants — it has a 3,570-mile range.

Built by Lockheed, it has a cruising speed of 370mph.

More than 2,000 Marines took part this summer in Operation Handyman, the largest air-ground exercise ever held by the Marine Corps Reserve.

The three-day operation began 23 August at MCB, 29 Palms with 12 Reserve and air units from six states participating.

Included in the exercise was a Pathfinder drop, a vertical envelopment maneuver and use of simulated atomic bombs.

Under an agreement with its German manufacturer, Hiller Aircraft Corp. will bring a helicopter trainer to this country.

Called the Heli-Trainer, it is a single-seat, single-rotor helicopter linked to the ground by a stationary pivot mounting.

In the advanced configuration, the vehicle is mounted on a float so that the student can move the trainer forward, backward and laterally over the surface of the water.

Vice President Richard M. Nixon joined members of MAG-25 at their national reunion last month in Washington, D. C. Mr. Nixon served with members of the Marine air group in WWII as Naval Operations Officer attached to the combined Army-Navy-Marine air operation known as SCAT (South Pacific Combat Air Transport). At the Vice President's right is Col Ralph Yeaman, President of the group and CO, MARTD, Floyd Bennett Field, Brooklyn, N. Y. A West Coast meeting of the group was held in San Francisco.

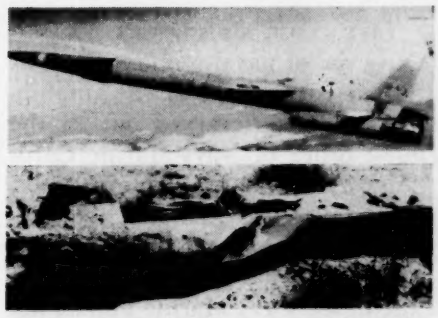
A turbine engine that has proved itself in the air will now be used to power the Marine Corps LVTPX-10.

The engine, General Electric's T58, develops 1,050 shaft horsepower and weighs only 271 pounds. It will be geared to the track wheels of the LVTPX-10 and replace the present reciprocating engine.

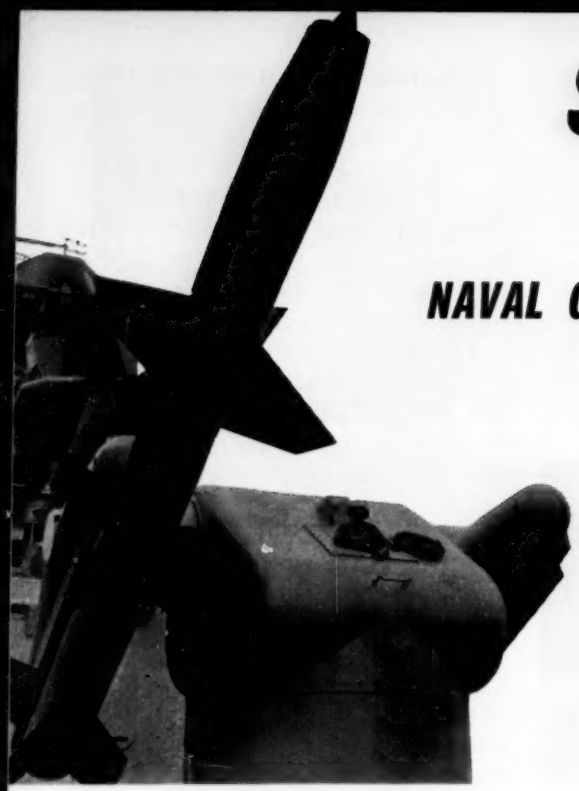
The amphibious vehicle doubles as either a troop or cargo carrier. Weighing 85,000 pounds, it can land 46 fully equipped infantrymen or carry 10 tons of payload afloat or ashore.

Designed as a helicopter engine, the T58 is now flying in Sikorsky and Kaman helicopters.

"Before" and "after" photographs of the Air Force Q-4 show it in flight and after a direct hit by a Sidewinder missile.



An Air Force fighter tracked the drone by radar and fired the Sidewinder at a distance of several miles.



SUPPORT BY FIRE

PART FOUR

NAVAL GUNFIRE: ADRIFT IN THE HORSE LATITUDES

By LtCol T. N. Greene

—Guidebook for Marines, p. 361
"Fire superiority is gained by subjecting the enemy to fire of such accuracy and volume that the enemy fire ceases or becomes ineffective."

LIKE CLOSE AIR SUPPORT, THE EFfective use of naval gunfire stands as a classic cornerstone of the amphibious art. It was carved out by the closest order of Navy-Marine Corps teamwork. Its functioning today places sailors in foxholes and Marines on Navy staffs. Indeed, not only does such a Navy-Marine team exist in the Fleet Marine Forces, but additional teams stand in readiness at the direction of the Joint Chiefs of Staff to provide the Navy-Marine Corps specialties of naval gunfire and close air support to army divisions committed to the amphibious assault.

Pleasant as past achievements may be to recall, neither the Navy nor Marine Corps has achieved present status by clinging to the weapons, tactics, or organizations of past wars. And we must squarely recognize that naval gunfire support as we know it was developed specifically for and from the atoll and island war of the Pacific. In particular, it was designed to fight the Bushido-inspired Samurai tradition of Japan which inflexibly proposed battle to the death at the water's edge. After Tarawa, we learned to come early and deliberately pulverize such defenses, achieving particular success at Roi-Namur and Guam. But at Iwo Jima, Kurabayashi threw away the Japanese manuals Marines had learned so well. He defended his beaches, not with flesh and concrete, but with indirect fire. Further, he refused the wild Banzai charge "to drive the invaders into the sea." He preferred to organize interlocking defenses on favorable terrain away from the power of ships' guns, rather than to obligingly pile up his forces in front of our MLR.

Following the lesson of Kurabayashi, the defenders of Okinawa gave Marines and Army assault troops a preview of what we hope to achieve with modern weapons—the storming of undefended beaches. Safely sheltered in the Shuri hill mass, the Japanese that Sunday morning must have considered our massive naval bombardment of empty beaches one of the greatest April Fool jokes in military history. For the defenders the joke paid off, too. In the desperate dig-them-out, head-on slugging of the final drive south, vital large caliber ammunition was in relatively short supply.

No matter what kind of war we face in the future, we cannot afford to waste our resources of either atomic or conventional weapons. We shall do so surely if we expect any potential enemy to adopt defense tactics which even the Japanese ultimately rejected. A thinking enemy, if he is able to defend our chosen beaches at all, will surely rely on light covering forces, mines and obstacles, long-range indirect fires, and mobile reserves. Accordingly, we must consider carefully how naval gunfire can best contribute to such warfare. It may be useful to begin discussion by first considering what fire support in general can and cannot do. From this basis, we can then consider what naval gunfire in particular can contribute. This will lead to the third step in the process, that of outlining the requirements of modern doctrine for naval gunfire development of weapons and organization. This is the process achieved so brilliantly before WWII. The final step remains the same: close Navy-Marine Corps teamwork to meet the requirements.

Just what does fire support, including naval gunfire, do?

The first task is to destroy. This is quite easy to explain or understand. We must consider only the target, observation, and the projectile. We can destroy by fire a pillbox, a tank, or a company of troops in the open. The pillbox is stationary, but small. We can never expect to hit it by unobserved fire. Given observation and enough time we can ultimately destroy the pillbox with any weapon, even a relatively inaccurate one, which has the power to penetrate. The tank offers the same considerations except that we do not have time to adjust. Accordingly, only a direct-fire weapon has any real chance among the conventional family. The infantry company in the open can be, and many have been, destroyed by unobserved indi-

rect fire. Observed is preferable, and it is apparent that some sort of observation is required to predict the place and time and target for unobserved fires. On the other hand, a target such as a well dug-in infantry battalion can be destroyed only by an unconventional weapon or a tremendous, costly conventional weapons effort.

The second task of fire support is usually listed as to neutralize. This is a term widely misunderstood and widely misused. The classic example, and a very common one, is that of a supporting arms observer—FO, SFCP, FAC, AO—who, failing to destroy a target, reports "target neutralized." Just what did happen to that target? Another classic example is a commander who conducts his fire planning by directing: "Neutralize that area." Such areas frequently turn out to be 1,000 meter grid squares. What does this commander really want done?

There is a relatively exact meaning for neutralization. It means to render the enemy in an area completely ineffective without killing him. If he is in the open, it is often possible to kill him, so the term is usually used in reference to fairly well dug-in enemy, or those in actual fortifications. If the enemy soldier is protected by cover and we are not deliberately going to destroy that cover and kill the man, how do supporting arms render him ineffective, keep him from firing his weapon—"neutralize" him? There is only one way and that is to place so much fire around him as to frighten him; simply, to attack his mind. A neutralized man is a shell-shocked man. Obviously, to derange a man's mind temporarily by fire, the considerations involve the accuracy, weight and duration of the fire, but they also involve the protection the man has, his training, his national character, and, finally, his own individual guts.

We considered in WWII that we could neutralize typical Japanese beach defenses for about one hour by placing somewhat over 120 tons of high explosive naval gunfire in each 1,000-yard square. Naval gunfire is particularly effective because of its large calibers and high (shrieking) velocity. To do the same job with a 105mm howitzer would require at least 6,000 rounds (48 truckloads). However, even such astronomical expenditures did not always work. Too often, we found individual Japanese soldiers whose simple peasant minds told them to stay in their emplacements, hang onto their weapons, and shoot when they saw a landing craft. Compare the effort and the effects with one atomic round.

It should be obvious that neutralization does not have any degrees. You either do the job or you don't. Firing half the fire over the same area will not half shell-shock a man. His mind goes or it doesn't and in any case the effect is usually only temporary. If the assault troops do not follow very closely on their fires, the effort of neutralization will be wasted.

Now let's return to the problem of a target consisting of an infantry battalion well dug-in over an area of several thousands of square yards. Seldom, except with atomic weapons, can we hope to have the fire support available to either destroy or truly neutralize such a target. What can we do about it? The answer is to go back to the same basic doctrine that governs the fire and maneuver of a fire team: gain fire superiority. A fire team or Marine rifle squad, properly trained, does not fire at random and try to achieve fire superiority over large areas of terrain. Marine riflemen and BAR-men are taught aimed fire—"fire of such accuracy and volume that the enemy fire ceases to become effective." Why does it cease to become effective? Because the enemy soldiers involved hear aimed bullets whispering to them and begin to hug their fighting holes when the conversation gets personal. It can be argued that this is a form of neutralization, but the essential difference is that this neutralization, if it is that, is extremely temporary.

The supporting arms team can frequently destroy specific, visible enemy targets. On rare occasions in conventional war it can mass a big punch in a critical zone and achieve neutralization. Such occasions must necessarily become even less frequent under modern doctrine. What the supporting arms team will usually be able to do is to support by both close and deep fires the attack or defense of the rifleman. It can achieve a temporary fire superiority by fires of great accuracy and volume delivered for short duration *at the critical moment.* The plan of fire and the scheme of maneuver must be as intimately correlated as tank-infantry tactics in jungle war. As the enemy adopts the same tactics of mobility that we seek to exploit, deep supporting fires must inevitably become more important with a requirement to achieve fire superiority at the critical moment. Targets will be enemy mobile reserves, command and communications centers, and artillery, mortar, rocket, and missile positions. Except by use of atomic weapons, these targets are all extremely difficult either to destroy or to neutralize. Round-the-clock deep interdiction fires to deny or restrict enemy mobility will be emphasized. Against any enemy motivated to camouflage

USS GALVESTON—first of the missile cruisers

by an atomic threat, reconnaissance by conventional fire is imperative.

Now let us examine the capabilities and limitations of naval gunfire for support of such a general concept of gaining fire superiority by fire support. A traditionally important role for naval gunfire has been the destruction of hard point targets by use of flat-trajectory, high-velocity fire with its rugged, thick-walled projectiles. This capability remains, but such targets are fast vanishing or moving inland. The capability is greatly reduced when direct fire cannot be used. Also, Pre-D-Day operations giving the time for destruction of numerous targets are no longer favored.

Naval Gunfire—WWII

The greatest emphasis in past and current naval gunfire planning has been on neutralization, the firing of a rolling barrage over the beaches timed to the predicted rate of troop advance. This certainly is a capability to be retained for non-nuclear war. Of the ships designed particularly to assist in this job, only one Inshore Fire Support Ship (IFS) is in active service; its rocket-firing predecessors, the LSMR, are all in mothballs. So are the battleships which Field Marshal von Rundstedt credited thus in the Normandy landings against modern, armored forces: "The fire of your battleships was a main factor in hampering our counter-stroke. This was a big surprise, both in its range and effect."

This leaves the load on cruisers and destroyers, but it can be generalized that each time these ships put into a yard more turrets and ammunition storage capacity are removed to make way for missiles. The Marines on the beach are hoping for some missile support, but the unfortunate fact is that, so far, only a deep-support atomic missile of limited utility has been developed. The capability for close atomic support is not in being and the capability for close and deep conventional support continues to lessen.

New Developments

On the bright side are an improved antiaircraft capability and much better shore bombardment fire control. Also, 20 years after the beginning of WWII, steps are finally being taken to compile, analyze, and disseminate for planning use the results of practice shore bombardment firings. This should not be considered as a criticism of naval gunfire planners, since both field artillery and air are also just getting started in this area.

Improved shore bombardment fire control brings closer the potential for use of unobserved naval gunfire against area targets. It may, in time, stamp out the fallacy that naval gunfire inaccuracies are caused by inability of ships to navigate and locate themselves accurately. It is true that on some featureless coastlines, electronic assistance may be needed, but unless any such aids are located by very accurate survey, available only in the artillery regiment, the ship can probably do as good a job or better.

So long as we have naval gunfire ships of any description, a primary capability of naval gunfire will remain: the ability to maneuver along a coastline. We must not become so bemused by deep helicopter operations out of NGF support range as to forget that beaches have flanks. Ships can guard those flanks —not just for a few thousand yards, but for many miles. Unless he can interdict his coastal waters by mines or fire, no enemy dares use coastal roads for movement of major reinforcements, including tanks. The coastal interdiction capability of naval gunfire can be increased by the use of airspot—at least during the daylight hours. Defiles and road junctions deep behind enemy lines can be continuously interdicted, if they are in reach of the sea. As a further means of extending the range, gunfire ships can be teamed with reconnaissance elements which include an SFCP, particularly so at night. The advantages of such protected flanks is that our search for and attack of targets by other arms can be focussed inland. Even in an atomic situation, the power of naval gunfire on a coastal flank can be such as to obviate use of atomics in many cases.

Shore Fire Control Parties

The provisional series T/O places naval gunfire largely in the artillery regiment and reduces the number of SFCP. As discussed in a previous article of this series, BLT commanders and their supporting artillery are integrating all observation. This would be facilitated by making naval gunfire and artillery radio communications compatible. This can give one division 39 artillery FO teams and 9 artillery air observers who should all be trained in calling for and adjusting naval gunfire. This flexibility would make it readily possible to provide reconnaissance units, either Force or Division, with SFCP for coastal operations. It would also allow provision of FOs or SFCP for rear area defense, a requirement which can be support-

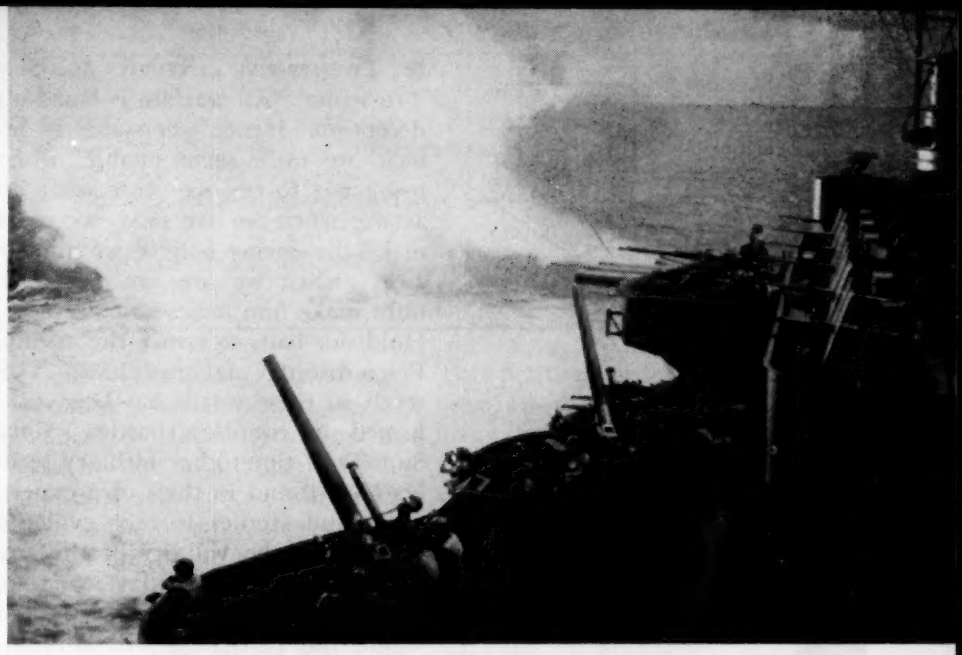
USS NEW JERSEY fires nine 16-inch guns in a single salvo—Korea—1951

ed by naval gunfire since logistic installations must remain oriented to the beaches.

AGC Facilities

A characteristic which is not exclusively that of naval gunfire, but which affects its employment, is the communications and staff facilities of the AGC. Under the best of conditions, the Supporting Arms Coordination Center (SACC) is a crowded, hectic space, compounded by the adjacent TACC. In Operation SKI-JUMP (Phiblex 57I), a division-wing exercise, the naval Amphibious Group lifting the division was made responsible for control of the ship-to-shore movement and for all fire support within the Bomb Line. This was handled in one AGC. The Amphibious Task Force Commander, embarked on a second AGC with the Landing Force Commander and the Tactical Air Commander, was able to use his facilities to monitor this operation and to plan and conduct deep support by reconnaissance, air, naval gunfire, and heavy artillery. This delegation of authority was accomplished without any requirement for jointure of command between the division and amphibious group. The air control agency aboard the subordinate headquarters is, of course, designated as a TADC and accomplishes the same function as the DASC does ashore.

We have seen the nature of fire support requirements for the modern concept and noted the diminished capability of naval gunfire to support the division. This does not mean that naval gunfire planners should continue to drift helplessly in the Horse Latitudes, dreaming of another chance to assault Tarawa. Nor does it mean that we should stand watching the helicopters carry our assaults beyond supporting range, while yard crews dismount the last gun turret in the fleet. Let's give a potential enemy credit for imagination and tactical know-how. Then let's sit down to figure out how we can counter him. Surely, he will defend the beaches and the helicopter landing sites by indirect fire whenever he can. It happened at Iwo and at Okinawa. It also happened at Saipan. While our neutralization fires rolled ponderously over the Saipan Home Guards disposed as covering forces, an entire



Pre-invasion bombardment—Guam—1944

regiment of Japanese field artillery sat just beyond the 0-1 line, without camouflage nets or prime movers, and pounded the beaches with impunity for two days. We must learn to look for and effectively attack artillery. At Saipan, also, a tank battalion hid for two days until it hit our MLR. We must learn to find and destroy enemy mobile reserves. Failing that, we must interdict or, at least, hamper their movement. To do this we need a better proximity fuze. The AA fuze is too sensitive while the mechanical fuze is hampered by high velocity.

The Future of Naval Gunfire

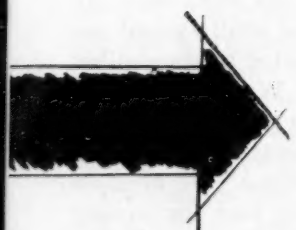
The amphibious assault over the beach must not fail for lack of fire support. Still we must carefully consider whether the requirement is for tons of ammunition expended in a rolling barrage over areas virgin of suspected targets on G-2's map, or for effective attack on known targets. We must balance our requirement for absolute neutralization of an area of light resistance against future requirements for achieving fire superiority in an area of heavy resistance. We must plan to supplement atomic weapons if they are used, not duplicate them. We must learn not to exhaust our resources (conventional or atomic) in a withering preparation on the enemy's covering forces, if the real threat to success lies in a future enemy counterattack. We must learn to assign realistic priorities to targets in amphibious war. The concern of the naval commander for a 37mm antiboat gun is appreciated, especially by Marines who ride those boats, but must it always take priority over a tank regiment or an atomic cannon which are not now threatening either ships or craft?

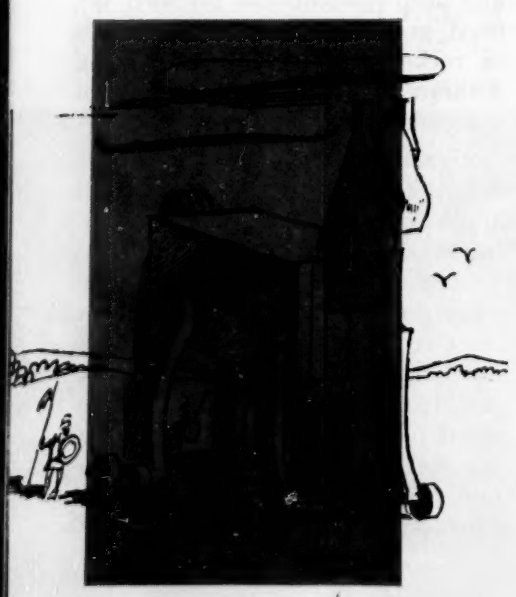
We Marines have made notable use of naval gunfire and we're sorry to see it lose effectiveness, but in the 1920s effective naval gunfire was as unknown as the helicopter. Now is the time to quit drifting and get up steam. We need an integrated observation team for artillery and naval gunfire, supported by compatible communications. We need to work out techniques to use naval gunfire in support of coastal reconnaissance and rear area defense. We need an effective proximity fuze for surface targets. We need a close atomic support capability, and improved close and deep conventional support. We need greater range weapons, such as rocket boosted guns—sacrificing accuracy and penetration for rate of fire and lightness.

Above all, we need a Navy-Marine doctrine calling for the intelligent application of naval gunfire to selected targets with such accuracy and volume that enemy fire ceases or becomes ineffective. And that doctrine must recognize that the targets will not be along the waterline of a Pacific island—they'll be dispersed by the triple threat of the atomic weapon, the helicopter, and the amphibious mobility of the Navy-Marine Corps air-ground team. USMC

MISLEAD THE ENEMY

By Col V. J. Croizat





TWENTY-FIVE CENTURIES AGO SUN Tzu wrote: "All warfare is based on deception. Hence when able to attack, we must seem unable; when using our forces, we must seem inactive; when we are near, we must make the enemy believe we are far away; when we are far away, we must make him believe we are near. Hold out baits to entice the enemy. Feign disorder and crush him." The truth in these words has been confirmed in countless battles. Since Sun Tzu's time other military leaders have found in their own experiences and studies further evidence to support the validity of this ancient observation. Today when we may fight anywhere on earth and where the battlefield will be characterized by swift small unit action, the proper use of deception may well become the decisive element of victory.

Deception is used to make an opponent believe that which is false. It requires that a set of circumstances be manipulated in such a manner that an opponent analyzing them will be led to an erroneous conclusion and hence to defeat or failure. The basic object of any deception is therefore the mind of the opponent. Its purpose is to permit the achievement of surprise.

Surprise, which is fundamentally the application of the principle of economy of force, has long been recognized as a most useful condition to exploit. However, beginning in modern times with the large Napoleonic armies, concern with mass assumed increased importance. This emphasis persisted through WWI where the western front, virtually immobile for four years, gave evidence to the fact that mass alone was not capable of providing swift victory. In WWII, mass in terms of manpower became less of a preoccupation, while maneuver and firepower, provided largely by air and armor, assumed decisive importance. Now, as the battlefield becomes even less populated; as units maneuver with ever greater rapidity; as distances and intervals between formations grow ever wider; in short, as fluidity becomes the basic characteristic of battle, success will increasingly depend upon the sum total of small unit actions. Here will be true economy of force; and here will surprise gained through deception assume a new dimension!

The general subject of deception in military operations has been widely discussed and written about. At times, and often long after the event, some report of a spectacular real life deception has reached the public. One such report is the intriguing WWII story of British intelligence arranging for the corpse of a fictitious Marine officer, Maj Martin, to wash ashore in Spain with "secret" documents which the Germans were sure to read. Too often deception is treated either in a broad academic sense or is handled as a spy story. The net result of such treatment is to create the impression that deception is an abstract matter of concern only to governments or to the intelligence agencies of high level staffs. The subject of deception when treated in detail is also hampered by security regulations. Deception plans as such must receive only the most limited distribution; for success depends largely upon the secrecy with which the plan is prepared and executed. All of these factors tend to make the individual conclude that deception is a fine thing, but belongs in someone else's sphere of responsibility.

Yet, in spite of these handicaps to an understanding of deception, Marines are actually quite familiar with some forms of the art. Perhaps the best example is the feint. During WWII it was common practice to conduct a diversionary landing where the shore bombardment and perhaps even the movement of landing craft towards a suitable beach were intended to deceive as to our real landing area. Smoke is another deception device well known at all echelons. A secondary attack, as opposed to a main effort, is fundamentally designed to deceive. The means and techniques for deception are thus quite numerous—it is just necessary to think of them and then use them properly. The essential problem is to divest deception of any mystery and relate the term to the capabilities of all units including the smallest.

With the ever growing independence of small units on the modern battlefield, there is an urgent need to inculcate the qualities of effective leadership in a growing number of

subordinate unit commanders. The combat unit leader today finds himself relying largely upon the resources of his modest command, and upon his competence to use these resources. He must possess a thorough grasp of the capabilities of his men and weapons and be able to employ them successfully under circumstances most often requiring the application of the principle of economy of force. He must therefore be particularly alert to exploit any deception means which will gain for his command the element of surprise and tip the scales of battle in his favor. He must think instinctively in terms of deception. Every action he takes must be paralleled by another action intended to deceive.

In order to develop this "deception consciousness" in all combat unit leaders, it is desirable to use, whenever possible, known procedures which can be readily adapted to deception planning. Such planning must not become an added burden for the commander. On the contrary, deception planning must involve only a minimum effort and the least possible change in the normal routine of command. Fortunately the process which any unit leader uses in the preparation of his operation order is equally well-suited to the preparation of a corresponding deception plan.

All unit leaders become familiar early in their training with the procedure for making an estimate of the situation. This procedure assists the commander to arrive at a sound military decision, which subsequently is used as the basis for his operation order. The logical sequence of the estimate is readily adaptable to any situation and to any level of command. The squad leader makes his decision after a rapid mental analysis patterned upon the steps of the estimate process. The Landing Force commander determines his preferred course of action through a more elaborate and formal estimate which merely amplifies the basic procedure used by the squad leader. In either case the decision follows a consideration of all the factors bearing upon the situation, and involves an evaluation of what the enemy can do to oppose the various courses of action open to the commander. It should be noted that the decision is not arrived at by any mechanical or statistical means. It is made in the mind of the commander, and represents what, in his opinion, is the best line of endeavor for his command to pursue under the given or anticipated situation.

Col Croizat is the author of book reviews and articles frequently appearing on these pages. A graduate of Syracuse Univ., he received his commission in the Marine Corps in 1940. He has attended the French War College. After serving two years with the US Military Assistance and Advisory Group in Indo-China, he was assigned to Plans Branch, G-3, HQMC, where he is presently serving.

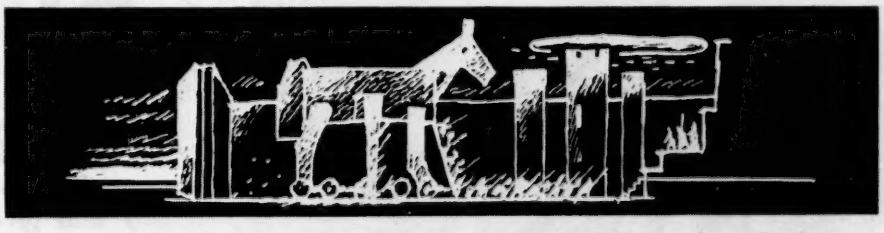
Any deception to be effective must be realistic. The enemy must be convinced that what we apparently intend to do can logically lead to the accomplishment of what he assumes our mission to be. And since all of the courses of action considered in the estimate must be able to lead to the accomplishment of the mission, it follows that any course of action, other than the one supporting the decision, can form the basis for the deception. Obviously the course of action actually selected for the deception will be the one which will cause the enemy to adopt dispositions or undertake actions most favorable to our real endeavors.

The estimate process thus simultaneously provides the basis for the actual decision and for the "deception decision." The preparation of the deception plan can then follow the same general process used to prepare the operation order. Following the completion of the estimate, two operation orders are prepared. The first is the real order containing the instructions required to carry out the actual decision. The second, prepared in exactly the same manner, is based upon the "deception decision" and contains the instructions which would be issued were the "deception decision" the actual decision of the commander. This fictitious order necessarily contains all the elements required to make the deception realistic. It contains, for the enemy, the essential elements of information needed to anticipate our further actions. These elements of the fictitious order can then be transposed into the deception plan as the actions required to carry out the deception.

Use of the same steps for both an operation order and the corresponding deception plans yields a twofold benefit. First, a unit commander will think habitually in terms of deception. Second, the deception plan is not prepared in a vacuum. Thus it reflects the real elements of the situation. Realism, the key to deception, depends on complete, reliable intelligence.

A commander's task is hard without good intelligence. He can't deceive the enemy. Worse, he may be deceived himself. Incomplete information can turn the two-edged sword of deception against you.

The nature of the modern battlefield makes deception the key to victory. But it makes the intelligence task hard, too. Lack of contact between regular fronts makes information hard to get. Changing conditions make information obsolete.



The modern combat leader must be "deception conscious." More, he must be equally "intelligence conscious."

It may be a paradox, but in the modern era where the capability for destruction has reached an unprecedented magnitude, success in battle will go to men endowed with the same qualities of initiative and resourcefulness which Sun Tzu recognized so many centuries ago. USMC

- THE BOXER REBELLION
- THE *WASP* IN ACTION
- APPREHENDING SEAL POACHERS
- FLAG RAISING ON IWO JIMA
- CAPTAIN PERRY IN AFRICA
- THE FLORIDA WAR

THE BOXER REBELLION

CLYMER & LOVELL SERIES

FLAG RAISING ON IWO JIMA

IN A NEW DIMENSION

Now, the colorful Clymer-Lovell series ready to hang. No frame needed. The plastic process brings out the vivid color and gives a lifetime waterproof, dust-proof finish. These six prints are full of graphic action and will dress up a living room, den or office. Order one or a whole set.

$2.00 EACH

By ordering through the GAZETTE bookshop. Regular 15% discount for Members.

GAZETTE Bookshop
Box 1844, Quantico, Va.

PASSING IN REVIEW

THE BATTLE OF FRANCE, 1940

COL A. GOUTARD. Translated by Capt A. R. P. Burgess. Foreword by Capt B. H. Liddell Hart. Ives Washburn, Inc., New York. $4.00

On 26 March 1956 Gen Charles de Gaulle wrote author Goutard that he had read the proofs of *The Battle of France, 1940* and found much good therein. He found basis for concluding that the whirlwind defeat of the greatest military power in Europe was caused not by any inherent weakness in the *poilu* or his equipment (organic inferiority of France, as de Gaulle puts it). But rather, the German attack of 1940 was devastating only because of a "defeat of strategy and of organization. . . ." And herein lies its value, both to the new France of de Gaulle and to the Marine who desires to study principles valuable in any country and every time frame.

To France today it provides a basis for hope—"the future remains open to us."

Col Goutard establishes, at the outset, the relative strength of the German and French forces. Guderian's "Panzer Leader" confirms Goutard's estimate of German strength. Certainly Germany did not enjoy anything resembling overwhelming superiority in any weapon, and was deficient in most.

Goutard points out that only in aircraft did Germany enjoy a numerical advantage, but even that disappeared when the British strength was considered. This, coupled with the fact that Germany was engaged in Poland gave France a great advantage in 1939, and no handicap in 1940. Why then the crushing defeat?

Goutard contends that France was the victim of a defensive complex which permeated the military forces. The General Staff, acting in accordance with its nature (see Huntington, *The Soldier and the State*) had prepared "the perfect strategy" to defeat Germany. From WWI the Staff had concluded that the war to come was to be won by forcing the enemy to expend his strength against linear strength, and then destroying him in his weakened condition. The validity of this exclusive strategic concept had been sold to the French Government and people. Scarcely a dissent was heard and when de Gaulle and Liddell Hart raised their voices in disagreement they were little heeded. The perfection and unanimity of completed staff work "proved" the validity of the conclusions—and France bet her future on blocks of concrete, slow

German invasion, France, 1940

tanks, and ponderous guns—Maginot line monism was fatal.

How were the people convinced of the validity of this strategy? For one thing, there is no reason to believe that any alternative was ever presented for the consideration of the government or the populace.

This is not surprising. In the Dreyfuss case (1893-1894) the General Staff long refused to acknowledge error and release Dreyfuss even though possessing knowledge of his total innocence. This position of perfidy was taken because of the General Staff's belief that acknowledgment of mistake would be dangerous to the security of France—the people might lose faith in the omniscience of the General Staff. To have the conclusions of the Staff questioned was deemed dangerous.

The surest way to avoid debate was to present to view only "one perfect plan," and maintain that position—come what might.

In 1939, with France totally dependent upon this WWI strategy, Germany attacked Poland, combining her weapons in a new mobile, fluid strategy with large Stuka-supported armored units making rapid, deep thrusts into Polish positions. These were precisely the tactics proposed by de Gaulle and Liddell Hart. (Guderian recommends Liddell Hart's studies published during the between-war period.)

What effect did this have upon French strategy? Goutard tells us, none. Mesmerized by their defensive strategy, the French lessons from Poland were "to dig even deeper down, to cast yet more concrete, and to strengthen antitank defenses along the fortified line." Why didn't France attack when the German strength was occupied in Poland and only marginal troops manned the Western Front? Hitler, for all his foibles, read correctly the character of French strategical monism when he told his military leaders:

"Gentlemen, one does not go to the earth for ten years in a Maginot Line, to get up one day and hurl oneself at the Siegfried Line!"

He was right. The French spent their time digging while their fighting strength deteriorated—"we could only allot one-half day a week to military training . . . many infantry units had still not fired a rifle. . . ."

The almost total inflexibility of the French staff and command organization was repeatedly demonstrated, according to the analysis of Col Goutard. In spite of de Gaulle's accurate evaluation of German strategy and tactics in the Polish campaign, the French High Command debunked the idea that German successes in Poland had held any meaning for the Western Front. Armor was never organized into formations, nor trained to destroy enemy armor. Instead, it was spread linearly behind the defenses and was never capable of employment in significant numbers at any one place when required.

Incidentally, there is a remarkable parallel between this period and 1914, illustrating the results of a strategic dogmatism. Dismissing the American Civil War as a backwoods affair and disregarding the lesson of

1870 that well-chosen and well-arranged defensive positions could not readily be carried by the means then available—a lesson which was confirmed at Plevna in the Russo-Turkish War of 1877 and in several battles in the Russo-Japanese War of 1904-1905 which saw the first important use of the machine gun—Foch and his school in 1914 conceived the religion of l'offensive brutale et à outrance. *Regulations for the Conduct of Large Units* (1913) provided this positive dogma:

"The teachings of the past have borne their fruit. The French Army, reviving its old traditions, no longer admits for the conduct of operations any other law than that of the offensive."

Marshal Foch later acknowledged error in this, but the 1,300,000 French casualties in the spring and autumn of 1915 were the result of this, an earlier "perfect plan": tragedy, and near disaster.

To return to WWII, the French "Plan of War" was as faulty as the concept. This plan submitted by Gamelin in February 1940 had these points:

1) Little chance of attack through Maginot Line to the south.

2) The center (Ardennes-Meuse) was not mentioned as a possible avenue of German attack. (In 1928 Liddell Hart had stated the terrain *was* suitable for armor operations).

3) Only the north was vulnerable, the plan concluded—an "outflanking attack through Belgium"—Germany's 1914 Schlieffen Plan again.

Thus, the plan was to strengthen the Belgian front, at the expense of the center. Linear doctrine apparently envisaged no strategic reserve of consequence. Furthermore, though "the very purpose of fortifications is to economize troops, which could be used as a mobile reserve, the French Command kept about 30 divisions on the Maginot Line, over and above the garrison troops responsible for manning the defenses."

The German scheme took advantage of these inherent weaknesses in French planning. In the north, "B" Group attacked through Holland and Belgium "in order to draw and pin down as many allied units as possible." It did. "A" Group would make the main effort with most of the panzer units, rapidly crossing the Ardennes and the Meuse at Sedan and Dinant (in the center) "with a view to exploiting toward the sea." It did.

From then on the defeat of the French was assured. It had in fact been inevitable from the beginning due to the inflexibility of French General Staff planning which had prevented anything more than token exploitation of the resources, men, and materiel the French had available.

An illustration of the fatality of total reliance on what appears to be perfect strategy.

The Battle of France, 1940, is an excellent study of military strategy and tactics, but is even more valuable as an illustration of the fatality of placing total reliance on what appears to be a perfect strategy. This seems to be characteristic of General Staffs. They are utterly confident of the success of their laboriously prepared plans. The government of France surrendered in six weeks.

In the foreword, Capt B. H. Liddell Hart agrees with Col Goutard's analysis.

This book is well worth the time, either to merely read or to study.

Reviewed by LtCol C. H. Le Claire

THE LAST NINE DAYS OF THE BISMARCK

C. S. FORESTER; Little, Brown and Company, Boston-Toronto. $3.50

From the moment the Bismarck proceeds from the harbor of Gdynia until she meets her fate, C. S. Forester holds the reader spellbound with superb writing of the highest order. Drawing upon both factual records and his own interpretive knowledge of men of the sea, the author has reconstructed, minute by minute, hour by hour, one of the most breath-taking adventures in the history of naval conflict.

Creator of the highly successful Hornblower novels, C. S. Forester, in writing *The Last Nine Days of the Bismarck,* has created a book which will become an all time naval classic. It is a book that belongs in ths library of all military men.

Reviewed by Capt V. W. Hanker

FROM BISMARCK TO ADENAUER: Aspects of German Statecraft

GORDON A. CRAIG. 148 pages, introduction, index. The Johns Hopkins Press, Baltimore. $4.50

This book is a collection of the endowed "Albert Shaw Lectures on Diplomatic History" delivered by Dr. Craig at Johns Hopkins University in 1958. We are indeed fortunate that the fruits of the author's scholarship and judgment are made available to a wider audience than that afforded by the University lecture room.

Professor Craig shares Santayana's disapproval of the general tendency to disregard the lessons of the past. Pungently, he says "Certainly, if the past has anything to teach us, we had better try to learn it, for our own diplomatic methods have not, of late, been conspicuously successful." It is the author's intent to survey the selected microcosm of the span of German experience as a substitute for the "tragic experience" cited by Kissinger as a requirement for a nation's attainment of the proper perspective in foreign policy.

This book provides an excellent account of the professional and technical skills which served Bismarck so well. Going beyond these, Dr. Craig holds Bismarck to be an example of what Max Weber described as the decisive and pre-eminent qualities for the politician—"passion, a feeling of responsibility, and a sense of proportion." In this framework we are shown the man and his labors and the image so deftly evoked is that of a true statesman.

Holstein, Bulow and Kiderlen-Wachter are, to Craig, the Epigoni—like the sons of the Seven who fought against Thebes, inferior to their predecessor. Dr. Craig's flair for the apt and illuminating historical citation is delightfully evident here. For example, he summarizes the effect of Holstein in one quotation—"When Bismarck departed, France was isolated; when Holstein went, Germany was. . . ." Sensibly distributing the blame for Germany's disasters, it is evident that the diplomats, deficient in the qualities of their predecessor, had a large share.

Additionally, there is a lesson in the activity of the Great General

Staff. Shortly after its formation, in 1883, this agency, in its reach for power, began demanding large amounts of information direct from military attaches. Independent of their ambassadors, these attaches inevitably began dealing in political matters. Many times they did not agree with the Foreign Service. Their contrary views (often uninformed, often wishful) found a ready audience in Wilhelm, who had a military bias which made him receptive to the General Staff approach. Thus, even when they managed to be right, the diplomats were often defeated by those who should have been serving them. Civilian control of this important area of military activity was forfeited to the OKW machine.

Moving to the complexities of the Republican period, it is made clear that the narrow range of choices operating on Rathenau, Stresemann, and Bruening produced decisions and actions which could not be popular. The unhappy role of Bruening in bringing the Nazis into power and the inevitable results of this action are shown as examples of maladroit statesmanship – again, disregard of the real needs of the real situation. The practical exercise in making virtue of necessity, recognized by his two predecessors, was the rock upon which Bruening–and the Reich–floundered.

". . . a lesson in the activity of the Great General Staff . . . . its reach for power."

As a bonus, Dr. Craig gives us a thoughtful review of the role of the ambassador, from Bismarck to Hitler. The lesson, implicit elsewhere, is explicit here. The denial of objective truth in formulation of foreign policy, and its displacement by wishful thinking, leads to disaster. And so to Adenauer.

This complex man's strength and weakness, his ability dangerously to oversimplify, his steadiness in adversity–all are prime factors in our world today. His moral strength, his vision of the Europe to come, his freedom from chauvinism, combine to mark him as a man whose goals, however history treats their attainment, are conceived in grandeur. Here ends our lesson.

Dr. Craig, says the jacket, agrees that "world leaders have allowed the conduct of foreign affairs to become entangled in a web of slogans and ideologies. . . ." Here, one hopes, is the outline of a monumental task which Dr. Craig is eminently qualified to take on. This book–and it should be read by every thoughtful student of our times–leaves tantalizingly unanswered the real problem of statecraft in the latter half of the 20th century. What is the role of the statesman?–how does diplomacy operate?–when the entire foreign relations system of one side denies the existence of objective moral truth in the Christian sense, deliberately perverts the meaning of basic concepts, and glories in any device which weakens or discourages the opposition. One dares hope that Dr. Craig will explore this jungle.

Reviewed by Col A. M. Fraser

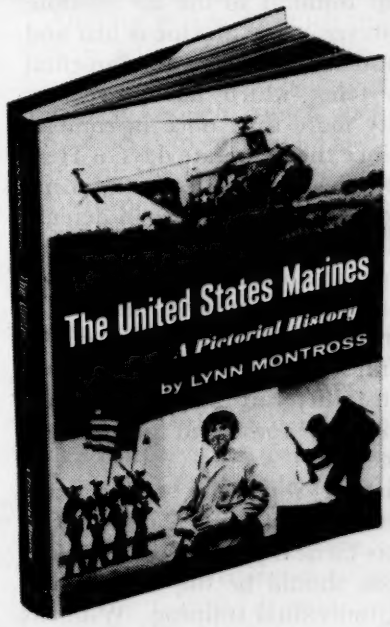
Have you ordered *your* copy yet?

General Matthew B. Ridgway, Ret., says:

"I am happy to have the copy of *The United States Marines* by their distinguished historian Lynn Montross. It would be a stimulus to all who read it to emulate, within their opportunities, the spirit of selfless service and courageous devotion to country recorded by members of this splendid Corps throughout its long and illustrious life."

Senator Paul H. Douglas, Lt. Col., USMCR, Ret., says:

"Those of us who have had the privilege of serving in the Marine Corps value our experience as among the most precious of our lives. The fellowship of shared hardships and dangers in a worthy cause creates a close bond of comradeship. It is the basic reason for the cohesiveness of Marines and for the pride we have in the corps and our loyalty to each other . . . Let us be proud as we scan the history of the Marine Corps."



242 pages • De Luxe, oversize
8" x 11" format
434 dramatic illustrations

The United States Marines

A PICTORIAL HISTORY BY LYNN MONTROSS

With an Introduction by Senator Paul H. Douglas, Lt. Col., USMCR (Ret.)

*Members' price—$8.50
(regular price, $10.00)

Gazette Bookshop
Box 1844, Quantico, Va.

OBSERVATION POST

This department is for new, constructive ideas. They may be controversial; they must be short. Payment at regular rates on publication. Maximum, 60 dollars.

Aviation in Self-Defense

1ST MAW, IWAKUNI, JAPAN.—The great and growing complexity of modern aircraft imposes staggering maintenance problems. Some of our in-service jets need up to 70 hours of maintenance for each hour of flight. And because a pilot's life or the success of a tactical mission might depend on the adequacy of that maintenance, we can do no less than demand faultless performance on the part of mechanics and technicians. Anything that reduces the time that these support personnel can spend on the job, or that doesn't contribute directly to their job proficiency, such as basic training, is held as inimical to the air mission.

However, every Marine is first and foremost a rifleman, a fundamental Corps tenet which has proved its validity more than once in combat. Not since the desperate days of Henderson Field have the sky Marines had to pick up their rifles in defense of their installation. But airfields are not inviolate sanctuaries. Responsibility for ground defense of the strip devolves naturally on the air unit concerned. To meet that responsibility, air units must have a capability for rapid ground deployment.

Aviation squadrons rarely have time to organize and conduct exercises as tactical ground teams. Unit training should be the culmination of all individual training. With his officers constantly high in the sky or deep in the morass of administrative routine, this final development of his proficiency as a rifleman through teamwork is denied the aviation Marine.

So we come to the crux of the problem—how to provide more, or more effective ground training for aviation units. The answer—*take the time.* It will take more than little pieces out of the weekly routine when bones and scraps of military knowledge might be doled out. It will take a continuous period, long enough to allow the air unit to train and develop the coordination necessary to act as a tactical ground team. Have every operating squadron in the Marine Corps simply close up shop, completely, once a year and take off for a period in the "boondocks."

In nine days of field exercises an operating squadron could meet all CMC basic training requirements. And because the training would be conducted for the unit as a whole, personnel would develop the sense and skill of teamwork so necessary for the conduct and control of ground operations. Younger pilots would be given an opportunity for direct command experience, something rather rare in the routine of air units. More, the squadron would be able to concentrate on training for that capability it must possess: ground defense.

Figure 1 is a proposed syllabus for the nine-day training period. Some of the subjects required by MCO 1510.1A are not specifically covered, but could be treated in concurrent training.

Fig. 1 Nine-Day Training Schedule

	AM	PM
	E-4 and below	Squad Leaders, SNCOs	All Hands
FIRST DAY			
	US Rifle, Cal .30MI Bayonet First Aid Physical Exercise	Technique of Instruction Technique of Command	FAM firing, T/O weapon
SECOND DAY			
	Interior Guard BAR Map & Aerial Photo Reading Physical Exercise	Considerations in Defense Operations Plt, Co in Defense	Infiltration Range (if available) Organize fire team, squad, platoon duties to personnel
THIRD DAY			
	Machine Guns ABC Defense Physical Exercise	Operation Orders Frag Orders Map & Aerial Photo Reading	Live grenade firing (if range available) Preparing Individual Defense Positions
FOURTH DAY			
	All Hands		
	Fire Team, Squad Tactics (field application)		Platoon Tactics in Defense (field application)
FIFTH DAY (All Day)			
	Preparation of platoon defensive positions (setting fields of fire, setting up mutual support, etc.) (field exercise)		
SIXTH, SEVENTH DAYS			
	Company tactics in defense (field exercise)		
EIGHTH, NINTH (AM) DAYS			
	Company problem in establishing defense perimeter and conducting defensive operations		
NINTH DAY (PM)			
	Proficiency Exams Critique		

This schedule is based on a squadron organized as a rifle company of four or five platoons. It further assumes that junior officers in aviation have the necessary military knowledge to command units appropriate to their grades. In bald fact, this is not correct. A sizable portion of our junior pilots have been absorbed into the Corps through programs which provided no basic military indoctrination at junior command level. Group and squadron commanders should bring these officers up to an acceptable level of basic military proficiency through unit training programs or completion of MCI courses. These officers will be better pilots for their appreciation of infantry problems.

The average operating squadron probably experiences a 50 to 75 per cent personnel turnover during a year. To prevent personnel changes from having an adverse effect on the ground capability, the annual exercise could be complemented by quarterly one or two-day exercises.

The projected approach to training would lessen, but not eliminate, regular routine instruction. Close order drill, current affairs, moral guidance, and other items would have to be given on a continuing basis for obvious reasons. The reduction in the ground training load, however, during periods of normal air operations would contribute materially to the units' air readiness.

The nine-day training exercise approach would work fine for operating squadrons, but not for headquarters and service units. Pulling the MABS out of a group for nine days of field training would deadline the entire group, a situation not very desirable from a tactical viewpoint. Possibly 25 per cent of the personnel of these organizations could undergo the nine-day training exercise each quarter.

We cannot expect air units to be as capable in ground operations as infantry units. We can, however, expect them to be able to defend their own installations against ground attack. A ground defense capability should be the goal of basic training for aviation. It's time to reorient ground training for aviation to develop that ground defense capability.

CWO Earl A. Pike

Parrots Don't Think

OPPAMA, JAPAN—Webster's dictionary states that one definition of a parrot is "a person who repeats words mechanically and without understanding."

How many times have you seen an order from some higher echelon that has been copied almost word for word at a lower echelon?

Before proceeding any further with a discussion of this situation it would be well to keep one point in mind. Some orders, plans and messages do of course require amplification, interpretation, and some times clarification. Others are entirely original at the level of the issuing headquarters.

As an example of parroting, this

writer had occasion some time ago to review an order concerning uniform regulations. This order consisted of six typewritten pages of instructions. Not counting the heading or the authentication portions, no less than five and one half pages of this order were devoted to either verbatim quotes from Chapter 49, Volume I of the *Marine Corps Manual,* or orders of successively higher echelons! The remaining half page was original in that it told when this command would shift from one seasonal uniform to another.

There are several reasons for this practice. First, some individuals do not, or will not, check the distribution of any given paper. If a division order winds up in each company commander's basket, then why in heaven's name does Regiment have to issue a like order, and Battalion as well?—unless the order is subject to interpretation, amplification, or (we hope not) clarification.

Another reason for parroting is the phraseology certain commands use, such as: "Commanders will take prompt and decisive action . . . ," and "Commanders will insure widest dissemination . . . ." Such statements sometimes prod lower echelons into publishing orders that are not required. "Prompt and decisive action" all too often means publishing an order at the next lower echelon—preferably within 24 hours—quoting the basic order, and insuring that runners distribute the still smoking epistle to all incoming baskets. Similarly, "insuring widest dissemination" is too often interpreted to mean that no bulletin board will lack a duly copied version of the order as well as the source—or worse yet, sources—it was copied from.

Operation plans and orders seem particularly vulnerable to "parrot fever." An operation plan is voluminous primarily because it sets forth great detail. This is no reason to repeat it. Take the intelligence annex. Once higher echelon puts out the word on weather, climate, terrain, and so on, just how much more or *less* can you say that will be worthwhile? If the mean temperature for the Force Beachhead area is 78° during the operation, this information applies to any battalion zone of action. It need not be repeated in the battalion order.

Another reason so much information is repeated in operation plans is that the lower echelons simply don't get enough copies. It's more economical to make a few more turns of the mimeograph machine than to put the entire order-writing machinery into motion at a lower echelon.

The best order in the world is no better than the worst without the impact behind it of the seventh troop leading step: *Supervision.* These days the simple verbal order backed up by real supervision seems to be out of fashion. This tendency to build protective ramparts of paper about a commander is really unnecessary. Putting it in writing does not remove the mantle of responsibility from the shoulders of the commander. As the *United States Marine Corps Staff Manual, 1955,* (NAVMC-1110-AO3F) states in the very first paragraph: "The commander alone is responsible for everything that his unit does or fails to do." It does *not* say: "Except when he puts it in writing."

Let's look at the chain reaction

OBSERVATION POST CONTINUED

caused by parroting an innocent phrase: "submit in writing." For example, Division, Regiment and Battalion "parrot" a school quota. The chickens come home to roost in a rush now. Each infantry company commander now gets all three orders! The poor company commander must now have a clerk type up a piece of paper with the name of *one* nominee, his rank, serial number, and clearance, together with the normal heading, references, and the ending. A copy of this is duly filed and off goes the original to the battalion CP. Since the process is being repeated in the other companies it means the battalion will consolidate the four reports and of course file the four company letters nominating candidates for this school. Each company maintains a file copy. These various file copies must be retained for one year and contribute to the annual report of how big or small the unit files are! No wonder the file cabinet business is so healthy!

By eliminating from the regimental order the words "submit in writing," this unit could have saved many man-hours of administrative time. A simple telephone call from Regiment to the battalions and from the battalions to the companies would do. True, Regiment was directed to "submit in writing," but there is no need to parrot this phrase and pass it down.

The solution sounds almost too simple. Stop copying. Stop being a parrot. When you must write an order, bulletin or message, apply these four questions as a yardstick. Does it clarify something? Does it amplify something? Is it covered elsewhere, and does the distribution list include all units who need to know? And most important of all, can it be done without putting it in writing?

Remember, those commanders in military history who have shown unusual ability in troop leading and operational efficiency have also been men who had a low incidence of "parrot fever" in their staffs.

Maj G. L. Selmyhr

Let's Educate the Troops

MB, NSA, FT MEADE, MD.—There is one program which should be a priority activity for any education officer. This is a drive to give every Marine who needs it a chance to get a high school certificate through the USAFI General Educational Development Tests (GED Tests). According to the 15Aug58 Special Services Newsletter, 40.8 per cent of Marine enlisted men were not high school graduates. Based on total Marine Corps enlisted strength (175,000), some 71,400 didn't graduate. HQMC says the average GCT of all its non-high school graduates is 96.3; the average number of years of their formal schooling is 9.5.

Now in one Marine Barracks where men had very similar GCTs, nearly 45 percent of the non-graduates successfully completed the GED high school test. It is therefore reasonable to assume that 45 per cent of all Marines not graduated can also pass the GED test. If they did, more than 70 per cent of all enlisted Marines would have either a high school education, or its equivalent.

The GED test, of course, does not "give" a high school education to anyone—it simply measures and records the level of knowledge already possessed by an individual. However, with nearly 29,000 unknown Marines possessing the equivalent of a high school education, there are good reasons for the Marine Corps to know who they are.

The technical training requirements of a modern Marine Corps require a higher level of education. Specific assignments require special criteria. A high school education is becoming more prevalent in the list of criteria for service schools and other assignments in the Marine Corps. If we had among our enlisted men 70 per cent with a high school education (or its equivalent) we'd up the number screened for assignments. Then—and only then—we can emphasize needed qualities other than education.

Further, the self-satisfaction gained by a man who successfully passes his high school tests while in the Marine Corps is important. It's another example of the Marine Corps "taking care of its own." His satisfaction and sense of accomplishment from this achievement can accelerate his interest in further improving himself and, thereby, his worth to the Corps.

It is obviously impossible to test 71,000 men with the GED Tests; nor is it desirable. Less than half could successfully pass the tests, anyway. There are several other reasons for not testing all non-graduates. First, 12-14 hours is needed to complete them. This means four or five "sittings" for each man, no small factor to consider. Secondly, the number of GED Tests available is limited because the tests are controlled items. It is well to screen non-graduates in order to pinpoint the men with a reasonable chance of passing. A good way is to give a diagnostic test: the "key" of the GED program.

The diagnostic test offers two advantages. First, the tests are available in quantity to test large groups rapidly (5-6 hours vs 12-14 hours for GED Tests); second, the test points to Marines with a reasonable chance to pass the GED. Any good diag-

nostic test can be used. Two that are readily available and proven are listed. The method of obtaining USAFI Achievement Test #3 is discussed in MCO 1560.3A. It measures achievement only through the ninth grade. The California Achievement Test (Advanced level) measures to 14 grades and can be used to screen for college level GED Tests. This test must be purchased by the unit. MCO 4200.10 applies. A catalogue can be ordered from:

California Test Bureau
5916 Hollywood Blvd.
Los Angeles 28, Calif.

Men scoring 8.0 or better on all parts of the test have a reasonable chance to pass the GED Tests. When USAFI Achievement Test #3 is used, scores slightly less than 8.0 may be accepted.

Administering the GED Tests to the men qualified by diagnostic test is the final phase of this program. For isolated commands, MCO 1560.3A and the USAFI Catalogue, 9th Edition, give pertinent data for obtaining GED Tests. If the unit is near a testing center the education officer can arrange for his men to be tested by the center.

There are other items needed for an effective program. Motivation of the men tested must be high. They must know the nature of the tests and the importance of putting forth a good effort. Individual counseling will help. When a man receives his GED certificate, his commanding officer, if possible, should present the certificate and stress its importance, both to the man and to the Marine Corps. Publicity outlets available to the command should be used. More help can be given men not scoring high enough on the diagnostic tests. A point to remember in judging this test: it measures only levels of education; it's not a test one passes or fails.

Possibilities (for helping low scorers) are local high schools, the post education center, group study classes, MCI or other correspondence courses. After study, tests can be readministered and new action taken.

Some 71,000 Marines need more education. We can help them—and our Corps—by better use of GED Tests.

1stLt R. R. Hull

Order yours NOW!

CUSTOM TAILORED DRESS UNIFORMS

OPERATED BY
Jos. A. Wilner & Co.
Custom Tailors since 1897
801 14th St. N.W.
Washington, D. C.

Evening Dress $185.00 Mess Dress $65.00

Custom made uniforms of finest quality fitted to perfection by experienced military tailors.

Order now to assure delivery before these uniforms are required.

Prompt attention given all mail orders.

Convenient charge accounts.

Mainside—Old Dispensary Building
(Wednesdays only, 1100 to 1800)

Camp Barrett
(Mon thru Fri,—1100 to 1830. Sat, 0900 to 1200)

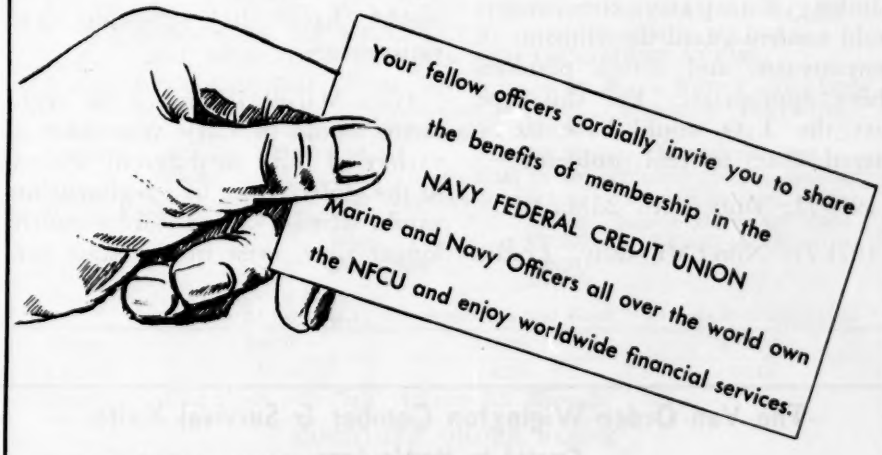
Jos A. Wilner Co.—Wash., D. C.
(Daily, 0900 to 1800. Thurs, 0900 to 2100)

The Uniform Shop

MARINE CORPS EXCHANGE

Marine Corps Schools, Quantico, Va.

NAVY FEDERAL CREDIT UNION


Your fellow officers cordially invite you to share
the benefits of membership in the
NAVY FEDERAL CREDIT UNION
Marine and Navy Officers all over the world own
the NFCU and enjoy worldwide financial services.

THE NAVY FEDERAL CREDIT UNION

Room IN33 MAIN NAVY, Washington 25, D. C.

I would like further information on the following services:

☐ Savings ☐ Personal Loans ☐ Auto Loans

Name .....

Name .....

Address .....

Rank ..... Branch of Service ..... Serv. No. .....

Membership limited to Commissioned and Warrant Officers, Navy and Marine Corps. MCG-10-59

NAVY FEDERAL CREDIT UNION

OBSERVATION POST CONTINUED

Rotate the Regiment

CAMP PENDLETON, CALIF.—This past year the Marine Corps began the transplacement of battalions between the 1st and 3d MarDivs. Now well underway, it should improve the efficiency of the FMF and foster a greater esprit de corps.

Now comes the question: why not rotate regiments intact? This would serve to get more Marines into the picture and increase the esprit de corps even further. This proposed system will give all Marines a wider variety of duty and hence, a better rounded career. The plan would be rather simple. For example, let's take any regiment and plan an itinerary as follows:

1959-62: Duty with 1stMarDiv

1962-65: Duty with 3dMarDiv (with dependents)

1965-68: Non-FMF duty with the Department of Pacific. Mission: to furnish security detachments west of the Mississippi. Place certain areas under control of a battalion commander. Company commanders could control guard detachments of company-size, and detach platoons where appropriate. For this type duty the T/O would have to be altered some; no real problem.

1968-71: Duty with 2dMarDiv

1971-74: Non-FMF duty. Locate regimental headquarters in Norfolk. Mission: to furnish ships detachments for the Atlantic Fleet. This still presents no problem that could not be ironed out. A tour of guard duty aboard ship never hurt anyone. MOSs organic to the regiment could be used in appropriate billets afloat. Excess in specialties could be employed in headquarters at Norfolk. And possibly divide this tour to allow 18 months sea duty and a like period of security duty ashore.

1974-77: FMF duty. FMFLant to keep one regiment in Cuba, Panama or Puerto Rico at all times (with dependents).

1977-80: Security force duty in Carribean, European or Mediterranean area.

1980-83: Duty with 1stMarDiv

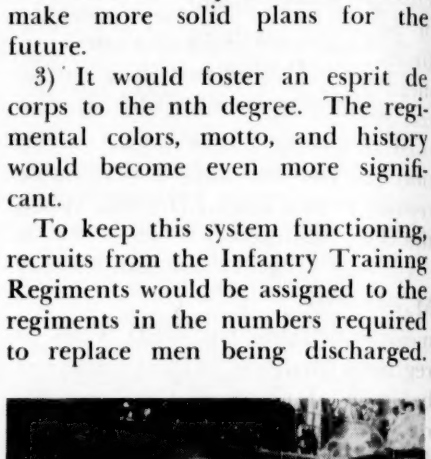
This itinerary is by no means absolute and infallible; it is meant only as a guide. There would have to be modifications depending on different conditions. The system would have the following advantages:

1) A Marine in any of the regiments would in a few years have a variety of duty in different sectors of the globe. Once in a regiment he would remain there for a much longer time, even in the same fire team, squad, platoon, company, and battalion.

2) It would produce more career Marines. Everyone in the unit would become better acquainted and could make more solid plans for the future.

3) It would foster an esprit de corps to the nth degree. The regimental colors, motto, and history would become even more significant.

To keep this system functioning, recruits from the Infantry Training Regiments would be assigned to the regiments in the numbers required to replace men being discharged.



This could be accomplished even when the regiment was outside CONUS. Simply send out new replacements and bring home short timers to be discharged. Say a recruit with six months service on a four year enlistment joins a regiment that had been with the 3dMar Div 18 months. By the time the regi-

The Van Orden-Wigington Combat & Survival Knife

Created by Marble Arms

A Bowie-type 6-inch blade that will chip dry oak or hickory at a 45-degree angle and still hold its edge. A hand-processed knife of optimum weight and balance for camp-craft, combat or survival. Strong handle capped with an octagonal hammer head. Reinforced scabbard complete with thongs and a sharpening stone in a pocket. Thirty saw teeth on back of blade will cut through Plexiglass, aluminum skin metal, steel cable and one and a half-inch saplings. Blade is 8-grain, 1095 carbon steel forged—a gun-blue, rust-resistant finish, 55-57 Rockwell hard, yet it takes a 9-degree bend without breaking or passing elastic limits. Specifications for this knife will be used in new BuAer Survival Knife.

A $25.00 value available to servicemen anywhere in the postal system for *$16.00 post paid

(*Probably less at your Marine Exchange)

EVALUATORS LTD., QUANTICO, VA.

George O. Van Orden, Brig Gen., USMC, Ret'd., President

SHOWROOM #1 WOODLAND DR., TRIANGLE

ment returned to CONUS the man would have one half his enlistment completed. The remaining two years would be spent performing non-FMF duty or FMF duty in a new locality. I firmly believe that many would reenlist to accompany the regiment to its next assignment.

If a man left the regiment to attend a school, at the completion thereof he would return to his regiment and be assigned appropriately. Possibly there could be an exchange of personnel between regiments at times. When a Marine left his regiment for a tour of duty such as DI, recruiter or I&I staff he would return to the regiment upon completion of the prescribed tour and be replaced by another Marine from the same regiment.

In this manner I believe that a Marine would always have a much more loyal feeling toward his "own" regiment than the present system of belonging to several regiments in a relatively few years.

A somewhat similar rotation system could be instituted for support units (pioneer battalions, motor transport, recon, artillery, and force troops). The three division headquarters would remain where they are. Maybe it would be more efficient to reinforce the regiments with segments of support units such as an artillery battalion, pioneer company, truck company, recon company, etc. Of course this system would require more than the present nine infantry regiments if the divisions were to be kept at T/O. This could be accomplished by forming the present security forces and detachments into additional regiments.

I am quite sure that regimental rotation would prove beneficial. Having discussed this proposal with one company commander, I have been told that the British employ a similar system. Now, I would be the last one in the Corps to advocate copying another country. However, I feel quite sure that this type of program would benefit the Corps and the individual. One problem is transporting dependents. But, after all, if the British have been doing this same thing for 300 years or more, why can't we? I am sure that they are no better off than we are economically.

AGySgt E. J. Thorn

The check honored 'round the world

Marines at home and abroad keep their accounts at the Marines home bank—the First National of Quantico. There's good reason—for over 35 years the First National has been serving the men of the Corps faithfully. It has gained an international reputation for integrity and its checks are known and honored around the world.

Savings • Checking Accounts • Loans • Christmas Clubs
Auto Financing at a Low 3½%

The First National Bank
OF QUANTICO

4 offices

Next to the Marine Exchange, Mainside • On Route #1, Triangle
On Potomac Avenue in Quantico • On Route #1 North, Dumfries

Established 1918

A. M. Bolognese & Sons

TAILOR AND HABERDASHER, QUANTICO, VIRGINIA

ANY TIME YOU ARE IN URGENT NEED OF UNIFORM ARTICLES EITHER CALL OR WIRE. LET US MOUNT YOUR MEDALS AND FILL YOUR INSIGNIA AND ORNAMENT NEEDS.

Summer Service Gabardines for Spring Delivery
Blouse $74.50
Trousers $25.00

Shirts
Dacron & Cotton $8.50
Dacron & Wool $16.50

Winter Service Uniforms for immediate delivery
Coat & Trousers $109.50
Topcoat $89.50
Black Tuxedo Coat to go with Trousers of White Mess Jacket $65.00
White Tuxedo Coat $35.00
Boat Cloak $100.00

Blue & White Evening Dress
2 evening dress shirts, 2 collars, cummerbund, vest, miniature medals, mounted, 2 collar buttons, white pigskin gloves and studs $300.00 complete.

	Campaign Hats (Add $2 for post.)	Engraved Swagger Stick	Swords & Accessories
Officer	$14.50	$14.95	$90.00
Enlisted	10.50	8.95	60.00

Engraved Calling Cards with Plate: Officers $12 Wives $8

CUSTOMER ORDER BLANK

PLEASE PRINT — FILL ALL BLANKS

Name _____
Address _____
_____
Articles Desired _____
Special Fitting Problems _____
Height _____ Pants Inseam _____ Seat _____ Cap _____
Weight _____ Neck _____ Sleeve _____ Glove _____
Waist _____ Chest _____ (outseam) Shoe _____

SHOE REPAIRING, USING O'SULLIVAN, AMERICA'S NO. 1 HEEL (ORTHOPEDIC WORK DONE)

OBSERVATION POST CONTINUED

Why Not a Shootout?

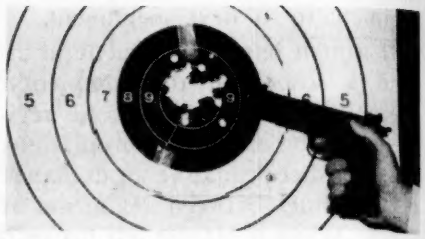
MCAS, EL TORO, CALIF.—The cal .45 pistol is about to rear its ugly, parkerized head. Frankly, many military people I've met consider this hand gun to be the greatest mechanical misfit since the square wheel. Its heavy, unwieldy bulk in the hands of the average shooter results in a one-in-ten strike ratio on the south end of a north bound bull elephant at ten yards on a clear day. We can't blame this poor show on modern Marine standards of marksmanship. The shooters really try but somehow the two and a half pounds of recoiling, counter-recoiling and rotating iron mass does not cooperate. We would be unfair to blame the pistol alone, nor can we state flatly that the ammo is at fault, but rather a combination of a loose, heavy and awkward weapon in conjunction with ammo of poor ballistics is the culprit.

What to do? I personally suggest that we put the family standby, the revolver, back in the hands of our troops. Before I skip blithely into a glowing tribute for the revolver, I should make mention of some of the fantastic scores I've seen blasted with the M1911A1. These scores are rare and so are the shooters. Few ordinary shooters can master this weapon, not without a tremendous outlay of ammo.

With the revolver I believe more shooters can learn to shoot well with less ammo per scoring session. Further, individual idiosyncrasies of each weapon can be calibrated by adjusting the rear sight. With our present pistol, one needs body-English, "Kaintuck" windage and a generous amount of plain schmaltz in order to bag a pinwheel.

Obviously a weapon that can deliver an increased volume of accurate fire at a smaller cost in time and ammo should be carefully investigated. True, not just any revolver could qualify as our "new" pistol. We need one that combines the features of ruggedness, dependability, ease of operation and maintenance and, of course, low cost per unit.

We can discount weapons of English make since they are too heavy or solely double-action types. Russian, Japanese and French models disqualify themselves as too complex. Also, they fire non-standard rounds. We would even rule out the old .45 cal S&W and Colt revolvers that were once US standard. But how about the .38cal Special S&W "Combat Masterpiece"? . . . or even the .38cal Special Pilot's Revolver? Of these two acceptable weapons the Combat Masterpiece is the best choice. It has an adjustable rear sight. A front sight ramp cuts down the usual barrel glare. The grips are excellent and the weapon fires a rather hot cartridge—the .38cal Special. The cost per pistol is high but in lots of a thousand or more the cost would drop sharply.



The other weapon, the .38 cal Special Pilot's Revolver, lacks the adjustable rear sight and the front-sight ramp. The grips are rather mediocre but the pistol fires the same cartridge as the Masterpiece. Its cost is less and in lots of a thousand or more would be much less than the M1911A1. However, with better grips and a simple rear sight capable of horizontal adjustment, the Pilot's Revolver would closely match the major features of the Masterpiece. Both revolvers can shoot either single action for accuracy or double action for volume.

Each holds six rounds. Now the M1911A1 *can* hold seven rounds in the magazine but more than five are seldom carried so as to slacken the setting of the follower spring. Neither the Pilot's Revolver nor the Masterpiece suffer the bugaboos of all automatics: deformed magazines, weakened recoil springs, and loading jams.

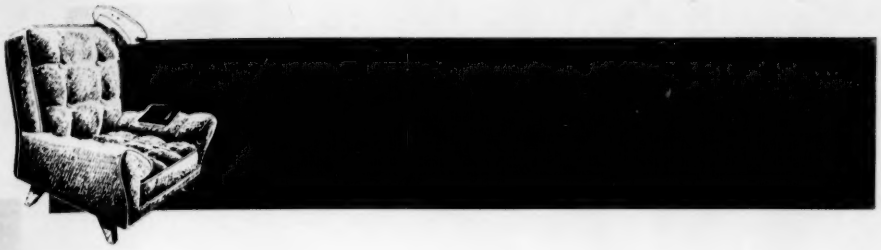
Now what about the .38cal Special round over the .45cal ball? The .38cal Special round not only has a greater velocity, but actually more striking power in proportion to its mass. I challenge any of my readers to remain standing after being penetrated by a .38cal Special round!

We want and need more proficient pistol shooters with less cost in time and ammo; we need a weapon that is capable of more than just blast and boom; and, by modification of the Pilot's Revolver *or* acceptance of the Combat Masterpiece in toto, we shall indeed have a weapon that fulfills our specifications. And when the day arrives that the revolver is back in the hands of the troops, we shall have completely and thoroughly equipped our men for tactical battle and weapon superiority.

ASSgt H. C. Puckett

WHY DID JAPAN LOSE THE WAR?
read
KŌGUN
皇軍
A factual history of the Japanese Army and its operations in the Pacific War
by
SABURO HAYASHI
in collaboration with
ALVIN D. COOX

$4.50
Published by
The Marine Corps Association
Box 1844, Quantico, Va.



NEW AND CURRENT

NOTE: 15% discount for Members!

1. **GERMANY REJOINS THE POWERS**—***Deutsch and Edinger.*** This timely book provides a fuller understanding of one of the most explosive problems in the present world situation—Germany's relations with the communists and the Western powers. $6.50 ($5.52)
2. **ESSENTIALS OF MILITARY TRAINING**—Seventh edition. A complete and up-to-the-minute revision of an old favorite basic text. Weapons sections includes M14 rifle, M60 machine gun, 81mm and 4.2-inch mortars, the 3.5-inch rocket launcher, and the 106mm recoilless rifle. $6.50 ($5.52)
3. **THE MASKS OF WAR**—***Langelaan.*** A thrilling account of WWII espionage. Warm humor and gripping suspense. $3.95 ($3.35)
4. **THE CRACKERJACK MARINES**—***Masselink.*** A novel of sheer entertainment about antics in a WWII recruiting office. Real-life humor, half tragic and therefore shockingly funny. $3.75 ($3.19)
5. **BATTLE**—***Toland.*** The story of the Bulge. Tells how close Hitler came to what would have been one of the most amazing turnabouts in military history. $5.00 ($4.25)
6. **DARK SEA RUNNING**—***Morrill.*** A tautly written story of the action-packed voyages of a WWII merchant ship. $3.95 ($3.35)
7. **THE BARREN BEACHES OF HELL**—***Cochrell.*** A savage story of Marine warfare in the South Pacific, indisputably authentic in every detail. $4.95 ($4.20)
8. **THE FIRESIDE BOOK OF GUNS**—***Kilner.*** Definitive panoramic story of firearms in America. $9.95 ($8.45)
9. **ABRAHAM LINCOLN**—***Sandburg.*** A beautiful three-volume paperback set of the "greatest historical biography of our generation . . ." $2.95 ($2.50)

THE GAZETTE BOOKSHOP • BOX 1844 • QUANTICO, VA.

— BOOK ORDER FORM —

1959 October

CODE NO.	PRICE
	$

SEND BOOKS TO (please print)

Name

Address

NEW! 15% Discount for Members

☐ Payment enclosed ☐ Bill me

TOTAL $

*Member's price only on books shipped to US, FPO or APO address.

ALL ABOUT

ORDERS—No need to print titles. Order by Bookshop Code number shown left of book title.
SERVICES—The Gazette Bookshop will fill your order for any book in print (Encyclopedia excepted). 15% discount from list price for members. No need to use order blank; any legibly written order will serve. Service will be expedited if you can include publisher's name.
CREDIT — Only Association Members are accorded the convenience of purchasing merchandise on credit.
MAILING — The Association will pay postage on members' purchases. Non-members will be billed for the postage on shipments to foreign addresses only.
PRICES—Non-members pay list price. Members pay price listed in parenthesis.
PAYMENT — Please make checks and money orders payable to the Marine Corps Association.

10. ALLIED INTELLIGENCE BUREAU—*Ind.* $4.95 ($4.21)
11. THE HOLY BARBARIANS—*Lipton.* $5.00 ($4.25)
12. WEBSTER'S NEW SECONDARY SCHOOL DICTIONARY (non-Index). $5.75 ($4.89)
13. WAR THROUGH THE AGES—*Montross.* $8.50 ($7.22)
14. DAUGHTER OF FRANCE—*Sackville-West.* $4.95 ($4.21)
15. THE MATURE MIND—*Overstreet.* $3.95 ($3.36)
16. BLUEPRINT FOR TEEN-AGE LIVING—*Menninger.* $2.95 ($2.51)
17. YOUR INVESTMENTS—*Barnes.* $3.00 ($2.55)
18. DENNIS THE MENACE "TEACHER'S THREAT"—*Ketcham.* $1.00 ($0.85)
19. IDEAL MARRIAGE—*Van De Velde.* $7.50 ($6.37)
20. HEADS UP—HEELS DOWN—*Anderson.* $3.75 ($3.19)
21. BETTER HOMES & GARDENS FLOWER ARRANGING. $2.95 ($2.51)
22. BETTER HOMES & GARDENS GARDEN BOOK. $4.95 ($4.21)
23. BETTER HOMES & GARDENS HANDYMAN'S BOOK. $4.95 ($4.21)
24. BETTER HOMES & GARDENS DECORATING BOOK. $5.95 ($5.06)
25. BETTER HOMES & GARDENS SALAD BOOK. $2.95 ($2.51)
26. BETTER HOMES & GARDENS BABY BOOK. $3.95 ($3.36)
27. THE LOTUS EATERS—*Green.* $4.95 ($4.21)
28. BARBARA GREER—*Birmingham.* $4.50 ($3.82)
29. THE TENTS OF WICKEDNESS—*DeVries.* $3.75 ($3.19)
30. CUBA, ISLAND OF PARADOX—*Phillips.* $4.95 ($4.21)
31. STEPS IN TIME—*Astaire.* $4.95 ($4.21)
32. PILOTING SEAMANSHIP AND SMALL BOAT HANDLING—*Chapman.* $4.00 ($3.40)

PIONEER K-225

1951 First to fly a shaft turbine helicopter *anywhere*

1954 First to fly a helicopter powered by twin turbines

1956 Kaman flew the first helicopter to be powered with a gas turbine designed specifically for helicopters

AND NOW 1959

100%

GAS TURBINE POWERED

Kaman converts its production 100% to turbine powered helicopters, becoming the first major helicopter company to take this forward step.

THE KAMAN AIRCRAFT CORPORATION
BLOOMFIELD, CONN.

PRODUCTION HU2K-1

In National Defense **KAMAN** *is part of the plan*